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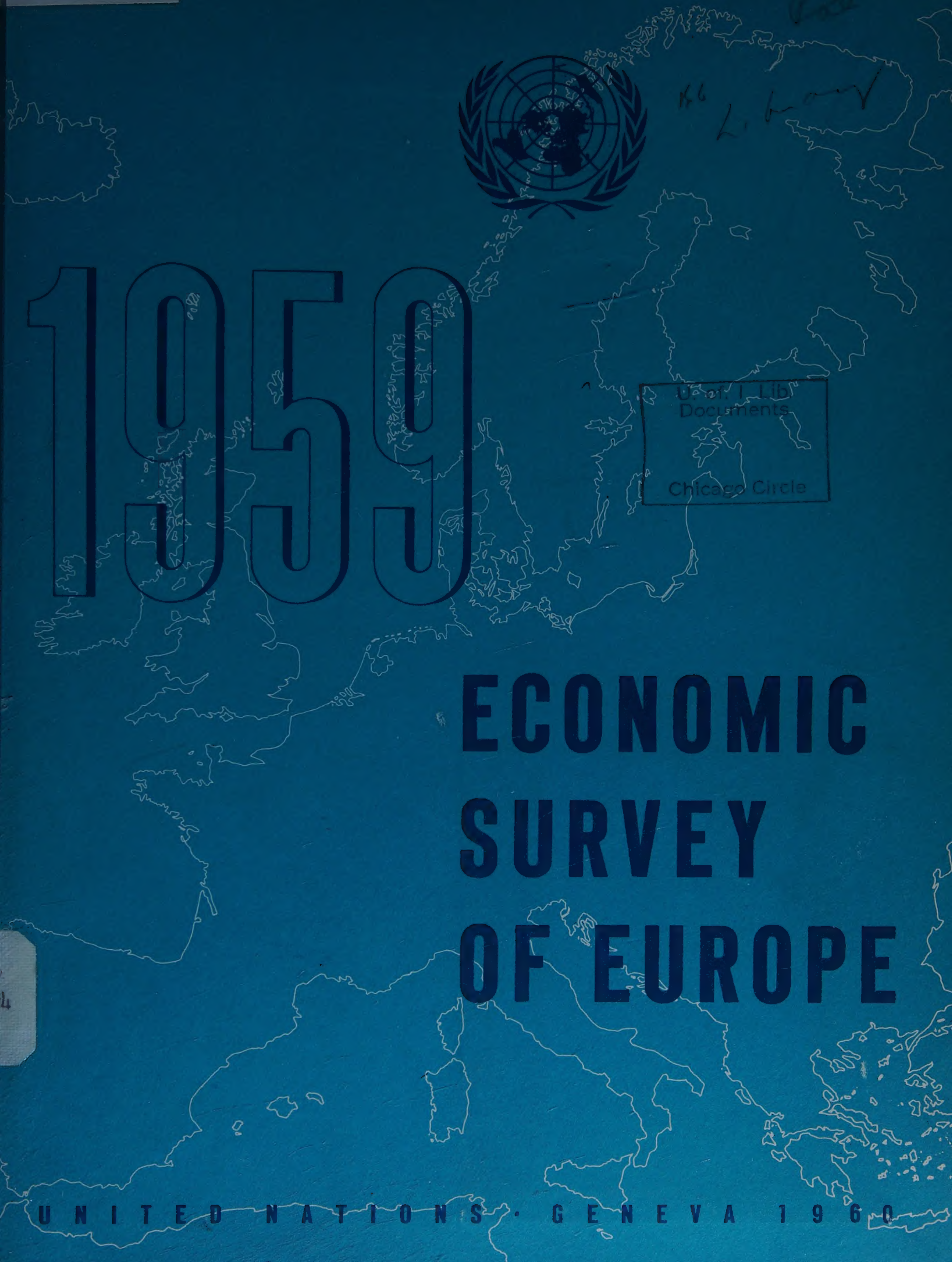

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ECONOMIC SURVEY OF EUROPE IN 1959

including studies of

The economic significance of the public sector
in some western European economies
and
Development problems in southern Europe and Ireland

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Prepared by the

SECRETARIAT OF THE
ECONOMIC COMMISSION FOR EUROPE

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Prefatory Note

The present SURVEY is the thirteenth in a series of reports prepared by the secretariat of the Economic Commission for Europe to serve the needs of the Commission and to help in the task of reporting on world economic conditions, which the Economic and Social Council of the United Nations has entrusted to the Department of Economic and Social Affairs.

This year's SURVEY is divided into four parts. The first part (Chapters I and II), continues the traditional annual analyses of recent developments in the European economy which, together with the material in the quarterly *Economic Bulletins*, are designed to provide a continuing review of economic events in Europe and elsewhere which may significantly affect the framework within which governments have to determine their economic policies. The renewed expansion in western Europe and the prospects for its continuation are discussed in Chapter I; and the rate and pattern of economic growth during 1959 in the economies of eastern Europe and the Soviet Union are reviewed in Chapter II.

Part II of the SURVEY is devoted to the new long-term plans — for periods of five or seven years ending in 1965 — published during the past year in Czechoslovakia, eastern Germany, Hungary, Poland and the Soviet Union. The general content of these plans is analysed in Chapter III; and in Chapter IV attention is concentrated on some special aspects of the new Seven-year Plan of the Soviet Union. In considering the material presented in these two chapters, the status of the new plans has to be borne in mind. In all countries the material so far published consists of " control figures " or " directives ", on the basis of which more detailed operational plans will be drawn up. The scope of the data available in official plan documents and other sources varies from country to country; and future elaboration, or even revision, of the plans may well change some of the conclusions suggested by the data so far available. Nevertheless, the new phase of development represented by the publication of these plans is of such intrinsic interest and importance that the secretariat has considered it appropriate to attempt an analysis of the available indicators of the expectations and intentions of the authorities concerned.

Following past practice, the opportunity has also been taken to focus attention in this SURVEY (in Parts III and IV) on some more general questions which are both of long-term importance and relevant to the current formulation of economic policies in European countries. Part III (Chapters V and VI) reviews the size and scope of the public sector in the more highly industrialized economies of western Europe, and discusses the actual and potential significance of public-sector transactions, and of budgetary policies in particular, as regulators of short-term economic developments in these countries. Part IV (Chapters VII and VIII) is, by contrast, concentrated on the less industrialized countries of western Europe. An attempt is made in these chapters, first, to review the past course of agricultural and industrial development in five southern European countries and Ireland, and thereafter to discuss some of the problems, in the fields both of external economic relations and of internal policy, which will have to be resolved if these countries are to achieve high rates of economic growth. It must be emphasized, however, that these two chapters constitute no more than a first step towards a thorough analysis of the problems and potentialities of economic growth in these countries.

As in earlier years, the secretariat has been assisted in the preparation of this SURVEY by material supplied by governments in response to its requests. In addition, the institution during 1959 of the " Statistical Indicators of Short Term Economic Changes in ECE Countries " (a compilation of current economic statistics prepared by the secretariat on the basis of data previously supplied by national Central Statistical Offices — and despatched to these offices each month), although primarily designed to assist the member countries of the Commission, has incidentally been of considerable help in ensuring that the most recent key data are available for preparation of the reviews in the SURVEY and *Bulletins*.

This SURVEY is published on the responsibility of the secretariat, and the views expressed in it should not be attributed to the Commission or to its participating governments.

Geneva *March 1960*

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EXPLANATORY NOTES

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of the frontiers of any country or territory.

The following symbols have been used throughout this SURVEY:

.. = not available or not pertinent;
— = nil or negligible;
* = estimate by the secretariat of the Economic Commission for Europe;
⌶ = interruption in the comparability of the series or a change in the unit in which the series is reported.

In referring to combinations of years, the use of an oblique stroke — e.g., 1957/58 — signifies a twelve-month period (say from 1 July 1957 to 30 June 1958). The use of a hyphen — e.g., 1953-1957 — normally signifies either an average of, or a total for, the full period of calendar years covered (including the end years indicated).

Unless the contrary is stated, the standard unit of weight used throughout is the metric ton. The definition of " billion " used throughout is one thousand million. Minor discrepancies in totals and percentages are due to rounding.

In general, information received up to mid-February 1959 has been included in the SURVEY.

PART I

THE EUROPEAN ECONOMY IN 1959

CHAPTER I

THE WESTERN EUROPEAN ECONOMY - RECENT DEVELOPMENTS AND PROSPECTS

1. THE RENEWED EXPANSION OF ECONOMIC ACTIVITY

A high rate of growth was resumed during 1959, after the setback of 1958, and has continued in the early months of 1960 in almost all western European countries (see Table 1 and Chart 1). The revival has drawn strength from the recovery in the United States which superseded the downturn of 1957 as early as the second quarter of 1958 and called forth a renewed buoyancy in imports from western Europe. But even though the economic re-expansion in western Europe has been facilitated by the strengthening of external balances, its main origins can be located within the region itself.[1]

In its early stages the re-expansion sprang mainly from the unfaltering strength of consumers' demand — particularly demand for consumers' durable goods — in conjunction with mounting constructional acti-

---

[1] The rise from 1958 to 1959 in exports to North America from western European countries was equal to approximately 10 per cent of the increase in their aggregate gross national product.

TABLE 1

Index numbers of industrial production in selected western European countries and the United States

1953 = 100, seasonally adjusted

Country	1957	1958	1958				1959			
			I	II	III	IV	I	II	III	IV
Austria	146	150	153	149	151	147	150	155	157	160
Belgium	123	155	120	112	114	113	115	118	119	124
Denmark	120	123	123	122	122	126	126	132	135	141
Finland	134	129	133	126	130	127	130	139	142	142
France	145	150	155	156	149	152	152	158	156	169
Western Germany	147	151	152	151	151	152	157	160	161	168
Italy	138	142	139	138	143	145	148	153	158	169
Netherlands	126	126	124	126	127	129	133	137	139	141
Norway	128	124	119	125	125	128	116	137	132	135
Sweden	119	119	121	118	117	119	123	120	122	126
United Kingdom	116	115	116	112	114	114	114	120	122	126
Yugoslavia	170	189	181	184	186	200	199	209	214	228
United States[a]	110	102	99	98	104	108	112	119	115	115

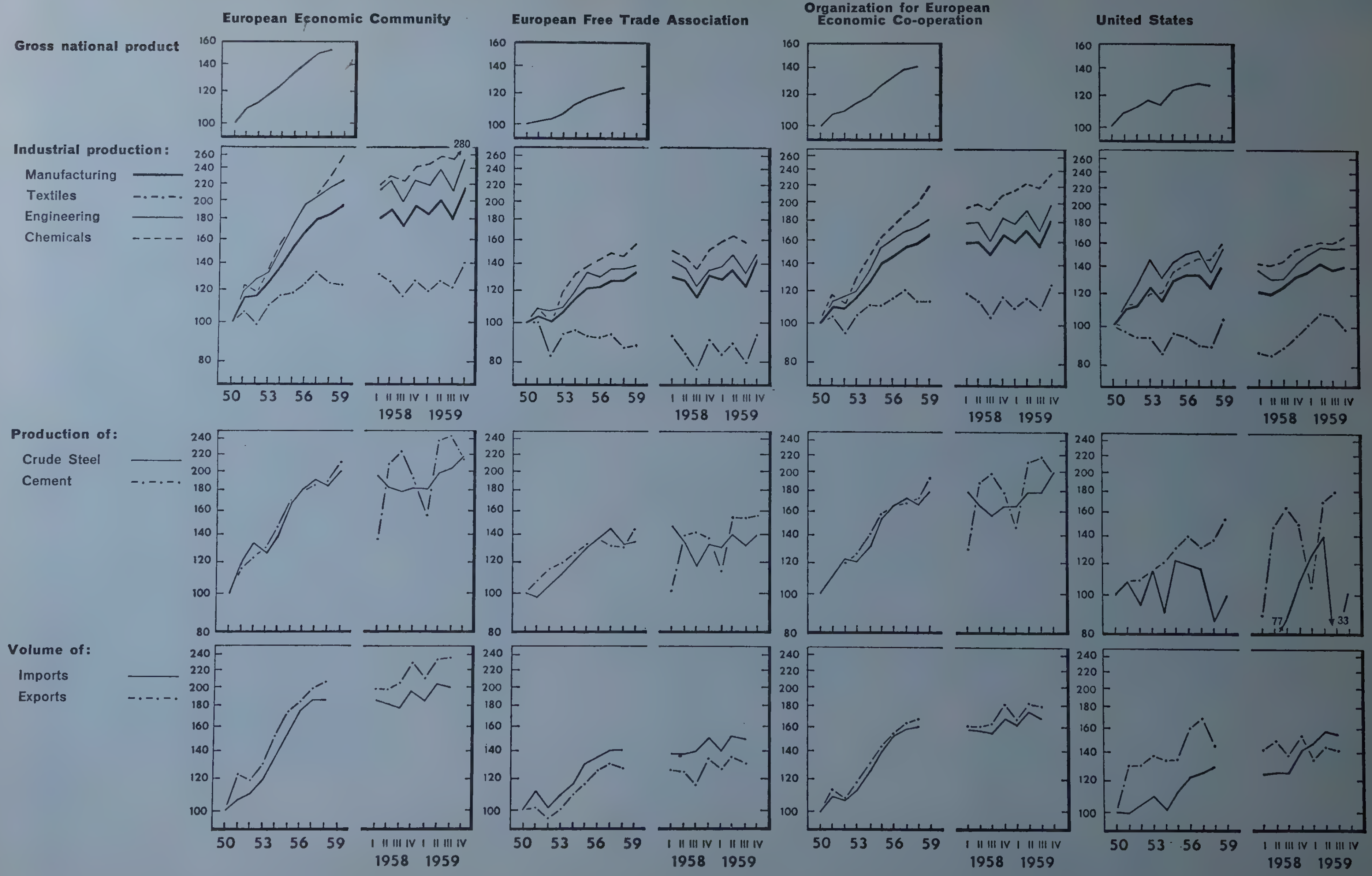
Sources: National statistics; and ECE, *Statistical Indicators of Short Term Economic Changes in ECE Countries.*

NOTE. — Factors for correction of seasonal fluctuations have been taken from *Definitions and Methods, I. Indices of Industrial Production*, OEEC, Paris, except for Finland and Yugoslavia, where adjustments have been made by the secretariat.

[a] New index of industrial production, including public utilities, prepared and seasonally adjusted by the Federal Reserve Board.

CHART 1

Selected economic indicators for western European countries and the United States, 1950 to 1959



Sources: *ECE Statistical Indicators of Short-term Economic Changes in ECE Countries* (monthly); OEEC *Statistical Bulletins — General Statistics*, and national statistics.

TABLE 2

Employment, working week and man-hours worked in industry

1953 = 100

		1958				1959			
		I	II	III	IV	I	II	III	IV
Austria	Employment	121	121	122	122	119	120	122	124
	Working week	103	105	106	106	99	102	102	102
	Man-hours worked	125	128	130	128	118	122	125	127
Belgium	Employment	101	100	98	97	94	96	98	..
Denmark	Man-hours worked	104	106	96	108	107	112	101	116
Finland (1958=100)	Employment	101	103	92	104	108	110	99	112 [a]
France	Employment	108	107	107	105	104	104	105	104
	Working week	103	102	102	100	100	102	102	102
	Man-hours worked	111	110	108	105	104	107	107	107
Western Germany	Employment	123	125	125	124	121	123	125	126
	Working week	91	90	91	94	89	90	90	92
	Man-hours worked	113	112	114	116	107	111	113	116
Italy	Employment	102	103	105	102	100	102	104 [b]	..
	Working week	100	99	95	101	99	100	104 [b]	..
	Man-hours worked	102	102	100	103	99	102	108 [b]	..
Netherlands	Employment	106	106	107	106	106	107	110	..
Norway	Employment	102	102	102	100	99	102	103	103
Sweden	Employment	102	102	102	101	99	101	102	103
Switzerland	Employment	116	115	113	111	110	112	114	114
	Working week	99	98	98	98	98	98	98	98
	Man-hours worked	114	113	111	108	108	109	111	112
United Kingdom	Employment	105	104	103	103	102	103	103	105
	Working week	100	99	99	99	99	100	100	101
	Man-hours worked	105	102	102	102	102	103	103	106

Sources : National statistics. [a] October-November. [b] July.

vity, both of which were sustained and promoted partly by changes in fiscal policies, partly by easier credit conditions. As the recovery gathered momentum and spread, there were, towards the end of 1959, clear signs in most countries of an actual or prospective increase in industrial and commercial investment; and the rise in production was accompanied by an increase in the value and volume of international trade. Both western European exports to the United States and intra-western European trade — primarily in manufactures — resumed their expansion; but neither the exports nor the imports of the overseas primary-producing countries rose at more than a slow rate — in some they even continued to stagnate.

Notwithstanding the vigour of the renewed expansion in most of the highly industrialized countries, price stability has been maintained to a degree unusual in the post-war period. Such price increases as occurred were due in great part to the drought in the late summer of 1959 and thus were not related to the upswing in activity. The course of western European expansion has been unusual in another respect: there has so far been no strong tendency for the rise in activity to produce weakened balances of payments; for the growth of western European exports to the United States has continued, and the exports of most western European countries have shared in the rise in intra-western European trade. In the increasing number of countries where monetary policies have been tightened — mostly to only a moderate extent — the immediate purpose has been to preserve price stability by avoiding an excessive rise of domestic demand in relation to supply; or interest rates have been adjusted as a response to developments in the capital markets of other countries, so as to prevent or limit the outflow of short-term capital. Indeed the international repercussions of national monetary policies have grown in importance and have received increasing attention — particularly since the introduction of convertibility by most western European countries at the end of 1958, the simultaneous and continuing liberalization of other restrictions on trade and payments, and the further moves towards economic integration during the past year. However, although governments have sought to prevent rises in costs and prices in order to safeguard their economic competitiveness, contractionary monetary policies have not been introduced to counteract any actual adverse movement in the balance of goods and services.[2]

Both the relative stability of prices and the continued strong balance-of-payments position of most western European countries reflect a high elasticity of supply, not only of primary goods imported from overseas but also of domestic products. Although the volume of current consumption, and imports of some primary goods, have increased appreciably since 1958, the availability of ample unutilized capacity and the existence of large stocks have cushioned the impact of growing demand on prices and price expectations. A further effect has been to delay the switch from decumulation to accumulation of stocks, and to afford, even now, little inducement for consuming industries to build up stocks of most imported materials.

The high elasticity of output in the western European economies has in most of them been manifested in the remarkable rise in industrial production relative to employment. Even though the setback of 1958 led to only a moderate, or negligible, increase in visible unemployment from the low levels of the preceding boom years, the subsequent rise in output per man-hour has allowed production to increase rapidly; and employment in industry rose little during 1959 (see Table 2).

To some extent, the rise in output per worker during the recent expansion is of course a short-term cyclical movement, reflecting changes in disguised unemployment or underemployment inside the factory gates. But this can be only part of the explanation; for production and employment have developed quite differently from one industry to another, and the economic lull and renewed expansion have been accompanied by large transfers of workers among industries and firms. These transfers, which have been almost entirely from low-wage to high-wage industries, have also promoted the rise in output per man-hour. Finally, and of major importance in the long run, the rise in output relative to employment is one outcome of the high levels of investment in plant and equipment during the preceding investment boom.

The scarcity of physical resources relative to labour has diminished during the post-war period in western Europe. This change in relative scarcities has had effects in a number of fields: the growth of real wages in conjunction with expanding employment, the improvement of western Europe's terms of trade with other areas, and the improvement of the balance-of-payments position of almost all western European countries — despite the gradual removal of direct controls and the reduction of economic aid from the United States. In only one important field has the trend run counter to what might have been expected on the basis of the change in relative factor scarcities: the rate of interest has risen in most countries during the post-war period, apart from short-term declines. Clearly, this trend does not reflect any increase in the relative scarcity of capital, nor can it be interpreted as evidence of a rise in the rate of profit.[3] It is rather a consequence of both the generally increasing use of policy instruments which operate through the price mechanism, and the decreasing use of direct controls, over domestic transactions and foreign trade and payments.

In the early post-war years the increase of work in progress and other stocks accounted for an unusually large share of total capital formation. Stock-building was temporarily boosted by the Korean boom, the reversal of which ended this first phase. During the subsequent expansion up to and including 1957, fixed capital formation grew at a pace leading to a tendency — particularly in industrial investment, but also in shipbuilding and other fields — for total capacity to outstrip the growth of output. At the same time, large investments undertaken in the preceding period — especially during the Korean boom — in order to expand output of raw materials and fuels, both within and beyond western Europe, began to swell the supply of such goods. These trends were for some time hidden by the inevitable time-lag between the input of resources in capital formation and the resultant increase in output; and by the upswing in general activity (and in demand for resources) associated with the investment boom itself, both in western Europe and the United States, during the mid-fifties. As balance-of-payments difficulties ensued, and wages and prices climbed, diverse contractionary policies were widely adopted.[3a] Consequently, in the course of 1957 and 1958, the economic scene changed gradually, but profoundly: while demand grew at a slackening pace total output capacities were much enlarged.

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[2] The comprehensive reform of Spanish policies, begun during the summer of 1959, constitutes an attempt to remove structural maladjustments and inflationary pressures in the Spanish economy which bear no direct relation to the recent general expansion of activity in western Europe.

[3] But the rise in interest rates which has accompanied the re-expansion during 1959 does, of course, in great part reflect a rise in profits. See section 4 below.

Against this background, it is scarcely surprising that certain sectors, notably shipping and coal-mining, have remained depressed, and that industrial investment has in most countries been slow to revive. Indeed the revival of industrial investment would presumably have been appreciably slower and weaker if the re-expansion of activity had not been accompanied — and promoted — by changes in the structure of output, which have led to the appearance of backlogs of orders in some industries. It may also be assumed that the rapid growth of the capital stock during the fifties reflected not only the expectation of continued growth in total demand and output, but also the desire of entrepreneurs to secure a wider margin between maximum capacity and normal rate of operation and thus a higher elasticity of output. Finally, technical innovation and, in some countries, the slower growth of the labour supply are inducements to investment in labour-saving equipment.

In recent years, when investment demand has been moderated by the increase in the stock of physical capital relative to the supply of labour, the savings ratio has risen significantly in several countries. The widening gap between saving and investment has been filled by a growing surplus on the balance of goods and services, which is the main element in the strengthened balance-of-payments position of western European countries.

The Pattern of Industrial Expansion

The present cycle is the first of the post-war period to have been determined almost exclusively by changes in the demand of the civilian sectors. And it is also the first in which re-expansion has not been supported to any significant extent by expectations of a rising price level. This said, it would be pointless to look for close identity of pattern between it and the 1952-1954 downturn and recovery.

Yet one similarity deserves mention: declining output in the textile industries led the downturn in both cycles (see Chart 1). In 1951 this was because both consumers and trade stopped hoarding textiles, which — together with stockpiling by certain governments — had inflated demand during the second half of 1950 and the early months of 1951, and had provoked drastic price increases. The fall in output lasted only one year; but it took two years for the previous peak to be regained. In the present cycle, output of textiles already began to fall early in 1957 — mainly as a result of a shift of consumers' demand towards durable goods and of intensified competition from overseas suppliers. The downturn was less abrupt than in 1951, yet it lasted twice as long: recovery began only in the first part of 1959.

Output of the chemicals industry surged forward at an even faster pace in 1958, after a barely discernible pause at the beginning of the year (in contrast to 1952, when production fell as a reaction to the rapid expansion — by almost 40 per cent — of the preceding two years). In most branches of the industry — basic chemicals and fertilizers, the new petro-chemicals, including synthetic rubber, and plastics — production rose briskly. In sum, the chemicals industry more than maintained the momentum of its long-term growth at a time when most other industries made little headway.

Output in the basic-metals industries increased rapidly in the latter half of 1950, continued to expand throughout 1951, and was well maintained in 1952; only in 1953, with the slowing down of armaments production, was there a brief decline in output. During the present cycle, however, the output of these industries responded to economic factors, notably the decrease in investment activity and the consequent de-stocking in the engineering industry. The shift from rising to falling output occurred during the second half of 1957. Hence this industry, for the first time during the post-war period, exhibited its traditional and pronounced cyclical sensitivity. The recovery also occurred at a relatively early stage — about the end of 1958, with some assistance from the exceptional re-stocking demand in the United States in anticipation of the steel strike in that country.

So far there has been no major setback in the output of the engineering industry since the last war. This can be explained in two main ways: first, the fairly mild recessions of the post-war period have affected personal incomes, and hence consumption, to only a small degree and the unequivocal upward trend of real incomes has been accompanied by an even more rapid growth in the demand for motor-cars and other durable goods. Second, fixed capital formation was maintained, and even somewhat increased, during the recession of 1952/53 and the slow-down of 1958, although gross investment in machinery and equipment appears to have fallen very slightly each time. There was, however, this difference between the two: during the recent downturn consumers' demand did more to maintain engineering output than in 1952, when the investment and armament boom which began in the summer of 1950 was only with some difficulty converted into a civilian boom by 1953. In 1958 the output of the engineering industry continued to grow at a rate not much lower than in the two previous years.

Coal mining was one of the few industries in which the situation did not improve during 1959. Output, which had already begun to fall in 1957, continued to contract. This deterioration can in general be ascribed to both a structural shift of demand from coal to oil and certain distortions of the fuel market during 1956/57. A prolonged coal crisis also occurred during the preceding recession and was characterized by rising coal stocks and intense competition between coal and fuel oil.[4]

[3a] See Chapter VI, section 2, p. 13 *et seq.*

Apart from the chemicals industry, only the foodstuffs industry was unaffected by the slow-down. The output of the foodstuffs industries has expanded at a fairly steady, but low, rate as a result of two factors in combination — the low income elasticity of demand for food and the trend towards increased processing of foods.

During 1959 almost all western European countries successfully emerged from the period of stagnation and resumed a high rate of expansion. Divergences of cyclical behaviour among countries were even greater than the differences between industrial branches just described. The increase in industrial production from 1958 to 1959 was most substantial in Yugoslavia, Finland, western Germany, Italy, the Netherlands, Denmark and the United Kingdom; whereas it was relatively modest in Belgium and Sweden (see Table 1). In Belgium, indeed, the volume of industrial production was still below that of the preceding peak, not only because coal production continued to fall, but also because output of textiles and basic metals in 1959 fell short of previous levels. The setback to expansion in Greece occurred relatively late and recovery was correspondingly delayed until the autumn months.

2. THE UNEVEN EXPANSION OF WESTERN EUROPE'S TRADE

The impact of the western European re-expansion on the diverse sectors of trade was uniform neither in strength nor timing. As appears from Table 3, the rise in activity led to a moderate increase in the value of total imports — principally of industrial manufactures. The upsurge in building activity in most countries and the uninterrupted expansion of the chemicals industries were accompanied by a considerable increase in the volume of imports — mainly from western European countries — of chemicals and forestry products, although a decline in prices limited the rise in the value of the latter. On the other hand, a large part of the increase in the value of imports of base metals was due to higher prices. The value of imports of most other basic materials increased little or not at all. But in this respect there were important differences among importing countries on account of the different timing of the resumption of expansion. Where this change took place relatively early, as in the Netherlands, imports of raw materials increased appreciably; whereas in the countries where re-expansion began later, it appears that the increased consumption of imported raw materials was initially covered in large part by running down stocks. As the revival spread in the course of 1959 the process of stock decumulation petered out. It may therefore be expected that during the present year western European imports of primary goods will rise rather more strongly than during 1959.

Intra-western European Trade

Intra-trade accounted for by far the biggest share of the rise in western European trade in 1959. The renewed expansion of this trade sector began towards the end of 1958, and thus followed with a time-lag of a few months the upturn in industrial production and in exports to North America.

From the first nine months of 1958 to the corresponding period of 1959, intra-western European trade increased by nearly $1,200 million; but a remarkable feature of this expansion was that it scarcely touched the less industrialized western European countries — only Turkey achieved any appreciable rise — of two-thirds — in its exports between January-September 1958 and the same period of 1959.[5] The exports to western Europe of all the other southern European countries, except Italy, declined, as did those of Ireland. The import experience of these countries was much the same: Turkish imports rose following some enlargement of quotas, but elsewhere the imports of the less industrialized countries stagnated, or even — as in Greece and Spain — contracted sharply. Thus the development in 1959 of both world trade and trade within western Europe conformed to a similar pattern: the growth of trade for the most part affected industrial manufactures, and therefore primarily benefited the highly industrialized countries, whereas the trade of the less industrialized countries tended to stagnate.

Although all the highly industrialized countries of western Europe to some extent took part in the expansion of intra-trade, the predominant element was the growth of the trade of the countries of the European Economic Community. These countries accounted for 73 per cent of the rise of imports in intra-trade and for

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[4] The present crisis in the western European coal industry is discussed more fully in section 4 below.

[5] This development was one of the intended and expected effects of the Turkish stabilization programme, introduced in 1958. See *Economic Survey of Europe in 1958*, Chapter II, p. 21; and Chapter VIII below.

TABLE 3

Total imports of selected western European countries by main commodity groups, January-September 1958 and 1959

Millions of dollars at current prices, c.i.f.

Commodity group and SITC code		Period	Austria	Belgium-Luxembourg	Denmark [a]	France	Western Germany	Italy [b]	Netherlands	Norway	Sweden	Switzerland [b]	United Kingdom [c]	Total of countries listed
Food, beverages, tobacco .	Sections 0, 1	1958	126.1	346.9	155.6	1 071.7	1 408.8	407.2	422.4	116.4	223.8	269.8	3 072.9	7 621.6
		1959	133.0	347.5	183.7	838.3	1 581.9	383.4	442.6	107.8	226.7	249.0	3 110.0	7 603.9
Raw materials	Sections 2, 4, excluding 24, 25	1958	115.2	383.1	72.5	927.9	1 175.3	680.5	310.0	49.8	126.6	117.5	1 433.2	5 391.6
		1959	104.9	424.2	85.0	778.1	1 185.4	654.7	345.8	58.2	132.3	112.1	1 399.4	5 280.1
Forestry products	Divisions 24, 25, 63, 64	1958	14.3	102.9	64.6	202.7	349.0	77.8	142.4	14.7	27.0	29.8	731.1	1 756.3
		1959	14.1	106.7	73.2	152.4	372.7	91.8	164.5	18.7	23.7	30.5	738.9	1 787.2
Fuels	Section 3	1958	101.4	311.8	165.8	839.7	565.5	453.7	457.4	89.5	275.4	114.9	897.1	4 272.2
		1959	87.2	294.2	147.9	736.6	526.2	429.8	413.3	82.3	252.3	107.6	995.5	4 072.9
Chemicals	Section 5	1958	61.1	151.9	87.1	173.9	198.3	158.0	146.2	48.5	114.9	120.7	246.3	1 506.9
		1959	69.2	165.1	96.3	165.4	237.6	173.7	177.8	57.5	126.7	145.4	274.7	1 689.4
Textiles	Division 65	1958	54.4	82.2	65.8	33.7	272.1	40.9	130.6	45.1	106.8	57.5	172.2	1 061.3
		1959	58.3	95.9	78.3	32.4	302.4	40.3	154.1	53.7	105.1	62.9	193.2	1 176.6
Base metals	Division 68	1958	39.7	167.9	91.8	334.0	539.3	166.7	233.0	107.4	166.2	123.4	473.8	2 443.2
		1959	45.1	204.3	117.9	270.7	680.8	225.9	264.8	104.7	174.6	134.1	496.2	2 719.1
Metal manufactures [d] . .	Divisions 69, 71, 72 . . .	1958	165.6	311.9	132.1	458.1	314.2	237.5	402.4	138.2	320.2	182.9	379.3	3 042.4
		1959	160.0	320.8	156.8	444.4	407.1	265.2	444.5	141.9	315.7	196.1	456.7	3 309.2
Transport equipment . .	Division 73	1958	61.5	179.8	91.0	88.0	126.9	47.4	153.1	299.2	178.5	90.5	100.4	1 416.3
		1959	74.4	186.5	113.3	57.8	165.2	42.9	158.3	283.5	152.8	132.5	96.0	1 463.2
Other commodities . . .	Sections 8, 9; Divisions 61, 62, 66, 67	1958	65.8	267.8	64.4	155.9	461.8	92.8	255.7	62.6	169.0	165.8	306.4	2 068.0
		1959	70.6	329.5	81.1	168.7	494.4	107.3	306.9	74.7	176.6	194.4	381.4	2 385.6
	Total imports . .	1958	805.1	2 306.2	990.7	4 285.6	5 411.2	2 362.5	2 653.2	971.4	1 708.4	1 272.8	7 812.7	30 579.8
		1959	816.8	2 474.7	1 133.5	3 644.8	5 953.7	2 415.0	2 872.6	983.0	1 686.5	1 364.6	8 142.0	31 487.2

Sources : National trade statistics.

[a] General imports, including transit.

[b] Not fully comparable with other countries.

[c] General imports.

[d] Excluding transport equipment.

almost 80 per cent of the increase in exports.[6] The difference between these two percentages was mainly due to the appearance of a French trade surplus. In consequence of the devaluation of the French franc at the end of 1958 and of the supporting restrictive monetary policies, the dollar value of French imports in the first half of 1959 was appreciably lower than in the first half of 1958, and in the third quarter of 1959 was only slightly higher than in the same quarter of 1958. The value of French exports, on the other hand, rose strongly from the second quarter of 1959, and for the first nine months of 1959 amounted to almost $240 million more than in the same period of 1958.

As appears from the figures quoted above, the growth of the trade of the Common Market countries was accompanied by a significant trade diversion. From January-September 1958 to the corresponding period of 1959, the imports of the Common Market countries from all western European countries rose by slightly less than 11 per cent, while their intra-trade increased by more than 14 per cent and accounted for about 60 per cent of the growth in intra-western European trade. The relatively greater rise in trade within the EEC is by no means fully explained by the upsurge of French exports; excluding imports from France, it amounted to almost 11½ per cent, as opposed to a rise of only close to 8½ per cent in the imports of the Common Market countries from all western European countries except France.

Particular interest attaches to the development of west German imports, which accounted for about two-fifths of the rise in intra-western European trade and for more than half of the rise in the imports of Common Market countries from western Europe. The value of west German imports from its Common Market partner countries rose at a considerably higher rate than its imports from other western European countries.

Rise in the value of west German imports, 1958 to 1959

Exporting country	*Percentage increase*
European Economic Community	29.7
of which :	
Belgium-Luxembourg	26.0
France	21.6 [a]
Italy	28.5
Netherlands	25.0
European Free Trade Association	14.4
of which :	
United Kingdom	19.8
Switzerland	22.7
Denmark	13.9
All western European countries	21.6

Source : *Der Aussenhandel der Bundesrepublik Deutschland*, Teil 1, December 1959.

[a] On account of the change in the status of the Saar, this figure represents the percentage increase between only the first half of 1958 and the first half of 1959. It would appear that the true figure for the year as a whole would show an appreciably larger increase.

Italy and the Netherlands also greatly increased their imports from other members of the EEC; whereas Belgium-Luxembourg and France achieved smaller increases. On the export side, France accounted for one-third of the rise in intra-Community trade, and western Germany and the Netherlands each for about one-fifth.

The relatively faster rise in the trade of the EEC countries, and particularly in their mutual trade, than in the trade of other western European countries apparently cannot be explained by divergent rates of industrial expansion; for from the first three quarters of 1958 to the same period of 1959, production in manufacturing industries increased by just under 5 per cent in both western Europe as a whole and the EEC countries. It therefore seems likely that trade inside the Common Market has intensified very largely in response to the first stages of the implementation of the Rome Treaty, and — doubtless more importantly — in anticipation of the further stages of this process.

During the last two years the west German surplus in trade with western Europe has tended to diminish: it was approximately $180 million smaller in the first three quarters of 1959 than in the same period of 1958 — a decline which was almost entirely confined to trade with other Common Market countries but which was fairly closely matched by the rise of $200 million in the French balance of trade within the Common Market. The French balance of trade with other countries also improved appreciably, and the Common Market countries increased their active balance of trade with other western European countries by $75 million.

The imports of the member countries of the European Free Trade Association account for almost two-fifths of intra-western European trade, yet the increase in their imports from January-September 1958 to the corresponding months of 1959 amounted to little more than one-fourth, or about $315 million, of the rise in total intra-western European trade. Of this increase only one-third ($100 million) arose in reciprocal trade among the associated countries, and almost all of the remainder consisted of imports from the EEC countries. Similarly the exports of the EFTA countries to the Common Market rose more — both in absolute and relative terms — than their intra-trade. In sum, the already greater degree of economic cohesion within the Common Market, compared with that among the countries of the Free Trade Association, was accentuated during 1959. This difference in developments may, of course, prove to have been temporary. As the first stage in the operation of the Free Trade Association will not begin before mid-1960, trade-diversion effects among its members could hardly have been expected to appear in 1959.

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[6] In terms not of the rise in trade but of its absolute value, the EEC countries accounted in January-September 1959 for 52 per cent of intra-western European imports and 60 per cent of such exports.

Trade with Overseas Countries

Whereas western European exports to North America, after having levelled-off in the first half of 1958, resumed their expansion from the second half of that year, the value of western European imports from North America was still slightly lower in the third quarter of 1959 than in the corresponding quarter of 1958. But a revival of this trade would appear to have set in during the last quarter of 1959.

Imports from other overseas areas, which had been depressed since the middle of 1957, began to stage a weak recovery in the second quarter of 1959. During the second and third quarters of 1959, western European imports from overseas primary-producing countries exceeded by almost $250 million such imports in the same quarters of 1958. Imports from the larger Latin American countries accounted for rather more than one-third of this rise. The remaining — and major — part of the increase occurred almost exclusively in imports from countries of the sterling area and in large part reflected the higher prices of sterling commodities referred to below. Imports from Australia alone went up by approximately $70 million, from the Federation of Rhodesia and Nyasaland by about $45 million, and from the Federation of Malaya by almost $20 million. In contrast, imports from the Union of South Africa, India, Pakistan and Ceylon appear to have benefited little from the rise in western European activity.

Western European imports from eastern Europe and the Soviet Union were more than $100 million higher (an increase of about 15 per cent) than during the two summer quarters of 1958; and the relatively small imports from Japan rose even more rapidly.

The deterioration since 1957 in the export earnings of the primary-producing countries has had a continuing, mildly contractionary effect on western European exports to these countries, which were still some $150 million lower during the second and third quarters of 1959 than a year earlier. Diminished exports to countries of the overseas sterling area, in particular to the Union of South Africa, India, Australia and New Zealand accounted for a large part of this continued decline; whereas exports to Latin America, mainly those to Argentina, showed some increase. In contrast to these comparatively small changes in shipments to the primary producers, and without question the outstanding change in western Europe's overseas exports, was the vigorous rise — by more than $750 million — in exports to North America. Exports to Japan increased by 36 per cent, and those to eastern Europe and the Soviet Union by 13 per cent; but the absolute increase in exports to these countries during the second and third quarters only slightly exceeded $100 million.

As was previously noted,[7] the deficit in the balance of trade of western Europe and North America with the primary-producing countries grew by almost $900 million from the first half of 1958 to the first half of 1959; of this change, North America accounted for nearly two-thirds (see Table 4). During the third quarter the balance of trade of the two industrial areas with the primary producers became more passive — by over $400 million — but this time only about 40 per cent (entirely the result of larger imports) of the change was attributable to North America. Of the remainder of the change, one-third was due to larger imports into western Europe, and two-thirds to smaller exports from western Europe to the primary-producing countries. It may be estimated, then, that for the whole of 1959 compared with 1958 the surplus of the primary producers in their trade balance with North America and western Europe rose by approximately $1.8 billion, and that roughly half of this change arose in transactions with western European countries. Moreover, a good deal more than half of the change was due to the fall in the primary producers' imports from the industrial countries; whereas total exports of the primary producers to the industrial countries rose by only slightly more than $450 million during the first three quarters.

On account of these changes in trade balances, as well as of capital movements and international aid, the previously rapid fall in the foreign exchange reserves of primary-producing countries slowed down, or came to a standstill, towards the end of 1958, and a reverse movement set in during 1959. By the end of the third quarter of 1959, the combined gross reserves of the primary-producing countries were probably about $150 million larger than at the end of 1958 — an increase of which the major part accrued to countries of the overseas sterling area, particularly its semi-industrialized members, although the reserves of India and Pakistan also rose somewhat. The reserves of Argentina and Chile rose relatively strongly, whereas those of Cuba and Venezuela fell. The gross reserves of most other primary-producing countries either remained unchanged or declined.

The Weak Recovery of Primary-goods Prices

During the eight years (1952-1959 inclusive) following the reversal of the Korean commodity boom the total range of variations in the OEEC price index of imported foodstuffs and raw materials was no more than 10 per cent — even though special circumstances have sometimes provoked strong movements in particular commodity prices.

With the gradual slowing down of expansion after 1955 both in North America and western Europe, a

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[7] *Economic Bulletin for Europe*, Vol. 11, No. 3, pp. 13-14.

TABLE 4

The trade of OEEC countries and North America, January to September 1958 and 1959

Millions of current dollars

Area	Imports, c.i.f.[a]						Exports, f.o.b.[b]					
	January-March		April-June		July-September		January-March		April-June		July-September	
	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959
I. United States and Canada												
Total trade	4 343	4 802	4 548	5 427	4 400	5 294	5 026	4 730	5 371	5 332	4 942	5 248
of which, with:												
Western Europe	915	1 163	974	1 418	1 032	1 412	1 374	1 259	1 527	1 348	1 360	1 461
Eastern Europe [c] and Japan	175	255	188	292	223	332	272	273	295	290	258	303
United States and Canada	1 494	1 527	1 649	1 915	1 574	1 735	1 452	1 515	1 645	1 908	1 602	1 752
Primary-producing countries	1 759	1 857	1 737	1 802	1 571	1 815	1 928	1 683	1 904	1 786	1 722	1 732
II. OEEC countries												
Total trade	10 873	10 495	10 707	11 429	10 463	11 179	9 644	9 596	9 530	10 543	9 612	10 463
of which, with:												
Western Europe	5 243	5 272	5 243	5 859	5 179	5 839	5 086	5 165	5 112	5 661	5 077	5 680
Eastern Europe [d] and Japan	402	453	386	479	451	491	353	362	345	394	331	396
United States and Canada	1 619	1 341	1 557	1 417	1 490	1 417	866	1 087	926	1 337	960	1 314
Primary-producing countries	3 609	3 429	3 521	3 674	3 343	3 432	3 339	2 982	3 147	3 151	3 244	3 073
III. Industrial countries (I+II above)												
Trade with primary-producing countries	5 368	5 286	5 258	5 476	4 914	5 247	5 267	4 665	5 051	4 937	4 966	4 805
of which, with:												
Overseas sterling area	2 068	2 114	2 062	2 251	1 957	2 136	1 979	1 755	1 837	1 814	1 778	1 776
Latin America	1 739	1 731	1 708	1 749	1 583	1 665	1 658	1 404	1 612	1 514	1 592	1 514

Source : OEEC *Statistical Bulletin — Foreign Trade*, Series I.

[a] For United States and Canada, imports f.o.b.

[b] For United States, exports excluding special categories.

[c] Including the Soviet Union.

[d] Including the Soviet Union. For western Germany, excluding trade with eastern Germany.

downward trend began to appear in world commodity markets. Prices of non-ferrous metals were among the first to weaken (thus the price of copper declined steadily after the first quarter of 1956), and during 1957 and early 1958 the movement became more general, although it was in very few markets of more than modest proportions. At an early stage there were already signs that the decline in prices was at least as much the consequence of the expansion of actual or potential supply as of any flagging in the growth of current consumption. The importance of the former factor is confirmed by the failure of primary-goods prices to strengthen much during 1959 in response to the vigorous re-expansion in the industrial countries.

The general downward movement of commodity prices petered out in the course of 1958, and from the end of 1958 to the end of 1959, Reuter's index of primary-goods prices on markets in the United Kingdom rose by close to 3½ per cent. Although this development, in so far as it affected non-ferrous metals, was certainly supported by greater industrial activity, special factors were probably more important: the output of copper was hampered by strikes, and restrictions on supplies of lead, tin and zinc were introduced or continued in order to buttress the markets. Though the price of lead changed little over the year, the prices of copper, tin and zinc rose respectively by about 15, 5 and 25 per cent.[8]

Some prices, particularly those of agricultural products, continued to fall during 1959: cocoa and coffee prices fell by about 25 and 15 per cent respectively, on account of expanding output and the change of export policy in Brazil, which abandoned the attempt to support prices by withholding supplies from the market. The prices of grains and sugar also declined. The bumper crop of sugar-beet in western Europe reduced import requirements, and throughout 1959 the Cuban world export price hovered around 3 cents — the lowest level of the entire post-war period. Other prices, notably those of natural fibres, ended the year higher than they began. Wool led this group; its price — strengthened by both the recovery in the textile industries and a cut in output due to floods in Argentina and Uruguay — rose by some 30 to 35 per cent between December 1958 and December 1959. Yet even after this rise the price of wool was below the average for any of the eight years prior to

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[8] United Kingdom quotations.

1958. The price of cotton increased in the last part of 1959 in expectation of a cut in the American export subsidy, but ended the year at a level little different from that at the beginning.

Natural rubber rose steadily in price during 1959, notwithstanding the existence of strategic stocks. Exports of natural rubber increased, but by little more than 100,000 tons, or about 5 per cent. On the other hand, output of synthetic rubber (outside the Soviet Union and eastern Europe) increased by some 400,000 tons, or about one-third. Whereas the price of natural rubber had increased by December 1959 to a level some 50 per cent above the 1958 average, that of synthetic rubber has remained constant. This is clearly an anomalous situation, and it is probable that the quoted prices do not cover all transactions in each type of rubber. In 1960 the American and British authorities will begin to release substantial quantities of rubber from their strategic reserves, as will the Soviet Government. Taking this, and the rapid expansion of synthetic output, into consideration, it is scarcely likely that the price of the natural product will rise further; it will probably tend to stabilize on a lower level.

Stockpiling policy towards certain non-ferrous metals and other materials has also changed — in response not only to generally easier supplies, reducing the need for stockpiling, but probably also to the continued switch to other materials, for example, from aircraft and other conventional weapons to rockets. The reduction in governmental claims on available resources as well as the generally improved supply position, will also affect the stockholding of the private sector; if entrepreneurs feel sure that supplies will be available at a fairly stable price, they may conceivably prefer to transfer the cost of stockholding to the producer, especially since the cost of credit has risen.

With the prices of industrial manufactures almost constant, and the prices of primary goods beginning to creep upwards, the improvement in the terms of overseas trade of western European countries came to an end during 1959. The price experiences of the primary-producing countries diverged rather widely: as would be expected, given the price movements of different commodities noted above, the terms of trade of Latin America continued to deteriorate, whereas several countries of the overseas sterling area benefited from rising export prices.

Balance-of-Payments Developments

The buoyancy of economic activity during 1959 did not, in general, cause the balances of payments of western European countries to weaken. Although some countries shared far more in the expansion of trade than others, in none did the trade balance change more than moderately. Denmark and the United Kingdom were the main countries in which domestic expansion swelled imports by so much as to cause a significant, but not serious, rise in the import surplus. In Spain, the trade deficit was much larger in the first half of 1959 than a year earlier, but during the second half of the year the fiscal and monetary reforms introduced during the summer months led to a gradual improvement of the trade balance.[9]

Changes in reserves of gold and foreign exchange reflected the continuing strength of western European currencies; yet official gross reserves rose much less in 1959 than in 1958 — by about $500 million as opposed to almost $4 billion. This change was matched, in part, by the improvement in the reserves of the primary-producing countries, which, having fallen by nearly $1 billion in 1958, presumably rose by some $200-300 million during 1959.[10] But at the same time the net loss of liquidity by the United States (loss of gold plus increase in dollar liabilities) continued at a high rate. However, since in 1959 a much larger share of the rise in dollar liabilities was accounted for by unofficial dollar holdings than in 1958, the slower growth of western European official reserves was very largely due to a more rapid increase in the dollar holdings of commercial banks, particularly in France, western Germany, the Netherlands and Sweden. This is in contrast to the exceptionally large, but temporary, transfers of dollar holdings from the commercial banks to the central bank which took place in Switzerland at the end of 1959. In interpreting this slower rate of growth in the reserves of western European countries, the gold payments (amounting to about $500 million) made to the International Monetary Fund in consequence of the increase in members' quotas, should be taken into account as should the re-purchases made by some countries, particularly France and the United Kingdom, in order to reduce the Fund's holdings of their currencies.

The largest increases in official reserves took place in France and Italy. Italian official reserves rose by about $1 billion during 1959, and those of France by close to $700 million. The improvement in the French total net position was more than twice as big as this figure suggests, since short-term liabilities were markedly reduced and a large amount of official foreign exchange holdings was transferred to the commercial banks. Danish official gross reserves also rose relatively sharply — by approximately one-third.

The least satisfactory development was the fall — confined to the last few months of 1959 — in the official gross reserves of the United Kingdom to a level almost $350 million below that at the end of 1958. The deterioration of the British trade balance was a contributing factor, but the major part of the fall was due to the servicing and repayments of foreign debts in the closing months of the year and to the outflow of short-term capital in pursuit of higher rates of interest in the United States and western Germany. Official reserves in the latter country fell during the first three quarters of 1959 — mainly as a result of the large-scale transfer of foreign exchange holdings to the commercial banks and of several extraordinary government payments abroad.[11] During the last quarter of the year, this movement was partly reversed as short-term capital re-entered the western German market in response to the tightening of credit policy, initiated for domestic reasons in September.

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[9] See *Economic Bulletin for Europe*, Vol. 11, No. 3, p. 21; and Chapter VIII below.

[10] See p. 9 above.

However, as the western European economic expansion gained ground during 1959, the most striking feature of the foreign exchange market became — not unlike the curious incident of the dog in the night — the absence of striking features. As no major western European currency underwent an exchange crisis, and as — with the transfer of foreign exchange holdings from central banks to commercial banks — less interest was attached to the movements of official reserves, the widespread and intense preoccupation of earlier years with such movements began to give way to a more detached, healthier attitude. Unfortunately, this progress was partly nullified by increasing concern about the continued high rate of loss of international liquidity by the United States.

The Balance of Payments of the United States [12]

In every year since 1948, except 1957, there has been a drain on the international liquidity of the United States which was particularly large in 1950 and in the last two years. At $19.5 billion, the present monetary gold stock of the United States exceeds short-term liabilities to foreigners by about $3½ billion. Hence, even if the loss of liquidity by the United States continued at an annual rate of only $2 billion, the short-term liabilities to foreigners would begin to exceed the monetary gold stock within two years. It is, of course, impossible to foresee what the authorities in the United States and the international financial community will judge to be the appropriate relation between the monetary gold stock of the United States and its foreign liabilities. If standards are applied similar to those applied to the reserve position of the United Kingdom both in recent years and in the past, the drain on the international liquidity of the United States could go on for a very long time without entailing any serious weakening of the international position of the dollar. Indeed, if it were thought fit that the monetary gold stock covered only, say, one-half of short-term foreign liabilities, the United States could continue indefinitely to increase its short-term liabilities to foreigners without changing the proportion between them and the gold stock — provided that the gold stock itself increased by the equivalent of one-half of the increase in foreign liabilities. None the less, the American balance-of-payments position has quite evidently been abnormal during the last two years, and it is safe to assume that, in one way or another, the annual loss of liquidity by the United States will be appreciably reduced in the coming years.

TABLE 5

Changes in the balance of payments of the United States

Millions of dollars

	Change from average of 1954-1956 to 1958/1959 [a]	Change from 1955 to 1958/1959 [a]
Increase in loss of liquidity [b]	4 261	4 332
of which :		
To international institutions	*1 935*	*1 763*
To all other recipients	*2 326*	*2 569*
Balance on goods and services (— = decline)	−2 342	−1 863
of which :		
Merchandise imports (— = increase)	−3 301	−3 331
Merchandise exports (+ = increase)	+1 267	+1 787
Military expenditure (— = increase)	−446	−402
Unilateral transfers (excluding military) (+ = decline)	21	+147
United States private capital exports (— = increase)	−355	−1 081
United States Government capital exports [c] (— = increase)	−473	−432

Sources : Survey of Current Business, and *Balance of Payments 1919-1956*, Department of Commerce.

[a] 1 October 1958 to 30 September 1959.

[b] i.e. fall in gold stock plus rise in short-term liabilities.

[c] Excluding those to international institutions.

The balance-of-payments position of the United States in 1955, or in the period 1954-1956, may be taken as a reasonable standard of comparison for the position in the past two years. During almost all of the earlier period, activity was rising in both the United States and most other countries, and was at a generally high level in 1955 and 1956. As appears from Table 5, the annual rate of liquidity loss (other than to international institutions) increased from the mid-fifties to 1958/59 by nearly $2½ billion — the major part of which was attributable to a declining surplus of goods and services, mainly accounted for by a stronger rise of imports than of exports. The rise in military expenditure contributed to the decline in reserves, but less importantly; and unilateral transfers from the United States decreased a little. On the other hand, capital exports considerably rose.

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[11] See *Economic Bulletin for Europe*, Vol. 11, No. 3, p. 19.

[12] See also the discussion in the *Economic Bulletin for Europe*, Vol. II, No. 3, pp. 16–19.

The Changes in United States Trade

The extensive fluctuations in the balance on goods and services of the United States in recent years have in large part arisen in transactions with western European countries; and the most recent decline in the American surplus on goods-and-services account has conformed to this pattern. Since 1957 the reduction in the surplus with western Europe has been approximately equal to the decline in the surplus in transactions with all other areas.

From the second half of 1955 and the first half of 1956 to the 12-month period mid-1958 to mid-1959, the United States balance of trade declined by almost $1,300 million. The surplus balance of trade with western Europe alone declined by more than $1,400 million, and that with Canada by almost $170 million; whereas in trade with most of the primary-producing countries the surplus increased.

Changes in the United States balance of trade from 1955/56 to 1958/59 [a]

Millions of dollars

	Total		
Total trade	−1 298	*of which:*	
Animals and products	−586	Meat	−216
Vegetable food products and beverages	+488	Coffee	+348
Vegetable products, inedible	+223	Crude rubber	+153
		Synthetic rubber	+48
Textile fibres and manufactures	+14	Raw cotton	+46
		Wool	+62
Wood and paper	+5		
Non-metallic minerals	−777	Coal	−156
		Petroleum and products	−543
Metals and manufactures	−140	Iron and steel	−658
Machinery and vehicles	−507	Automobiles and parts	−856
Chemicals	+170		

[a] Twelve months, 1 July - 30 June.

Part of the fall in the trade surplus was due to special and temporary factors, which led in particular to increased net imports of meat and a substantial decline in net exports of iron and steel. Some other major changes in the trade balance reflected the general weakening of the market position for primary goods: thus, in primary goods of which the United States generally is a net exporter — chiefly coal — its trade balance tended to deteriorate, whereas it improved — in large part due to lower prices — in primary commodities of which the United States is normally a net importer. For some commodities, most notably petroleum, imports covered a rapidly increasing share of total domestic consumption. In addition, the surplus in trade in a number of industrial manufactures fell, mainly as a result of a vigorous rise in imports from western European countries. At the same time, western European exports to third markets of several categories of manufactures expanded at a quicker pace than the corresponding American exports. These two developments caused concern that the competitiveness of United States manufactures was declining, and heightened the preoccupation of the American monetary authorities with the threat of inflation.

The Competitiveness of United States Exports of Manufactures

Chart 2 provides a comparison of the export performance of the United States with that of major western European countries for 12 groups of industrial manufactures. It conveys the general impression that exports from the United States have failed to participate fully in the massive expansion of imports of industrial machinery and equipment and motor-cars into western European countries.[13] The principal reason for this decline in the share of American exports in western European imports of these products is the rapid rise in west German exports.

In other commodity groups, however, the performance of the United States was rather better. This is true, in particular, of chemicals, aircraft and paper; in only the first of these are western German exports important. The decline in American exports of ‘ other vehicles ’ (largely aircraft) from 1957 to 1958 seems to be related to the delayed deliveries of the new jet liners; yet there is little doubt that the United States will remain the main exporter in this field.

In trade with third countries the export share of the United States declined significantly in only few groups — mainly road motor vehicles and industrial machinery and chemicals. The opposite shift occurred, however, in other exports: whereas western European exports of metal manufactures and railway vehicles to third markets were stationary, exports from the United States rapidly increased; and while United States' exports of textiles to such countries were maintained, western European exports declined. To sum up, the chart affords no unequivocal answer to the question whether the competitiveness of United States manufactures declined during the fifties.

Although the chart shows a decline in United States exports in a number of commodity groups in relation to those from the major western European exporters combined, it has two more remarkable features: first,

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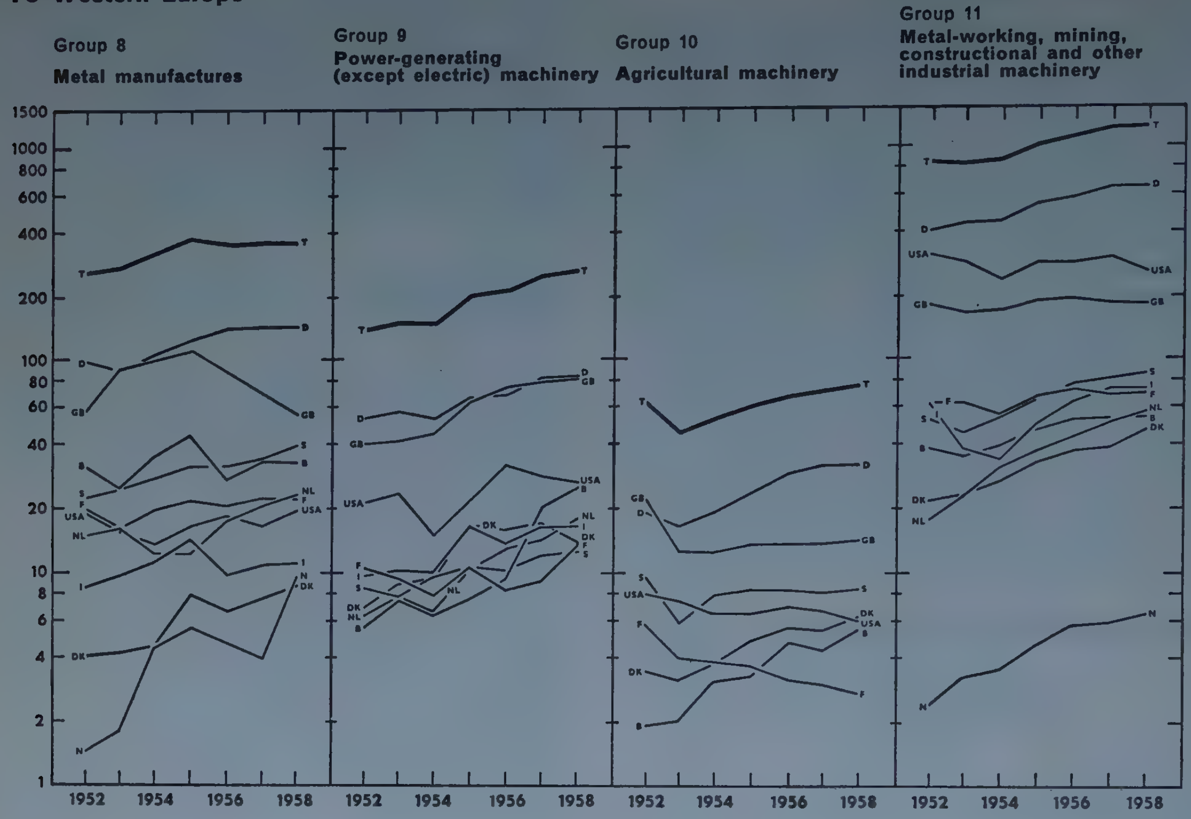
[13] Apart from the groups included in the chart, there was also, as already mentioned, a relative decline in the share of exports of iron and steel products from the United States.

CHART 2

Exports of the United States and selected western European countries to western Europe and to third markets

Millions of dollars at 1950 prices[a] f.o.b.

To Western Europe



To third markets[b]

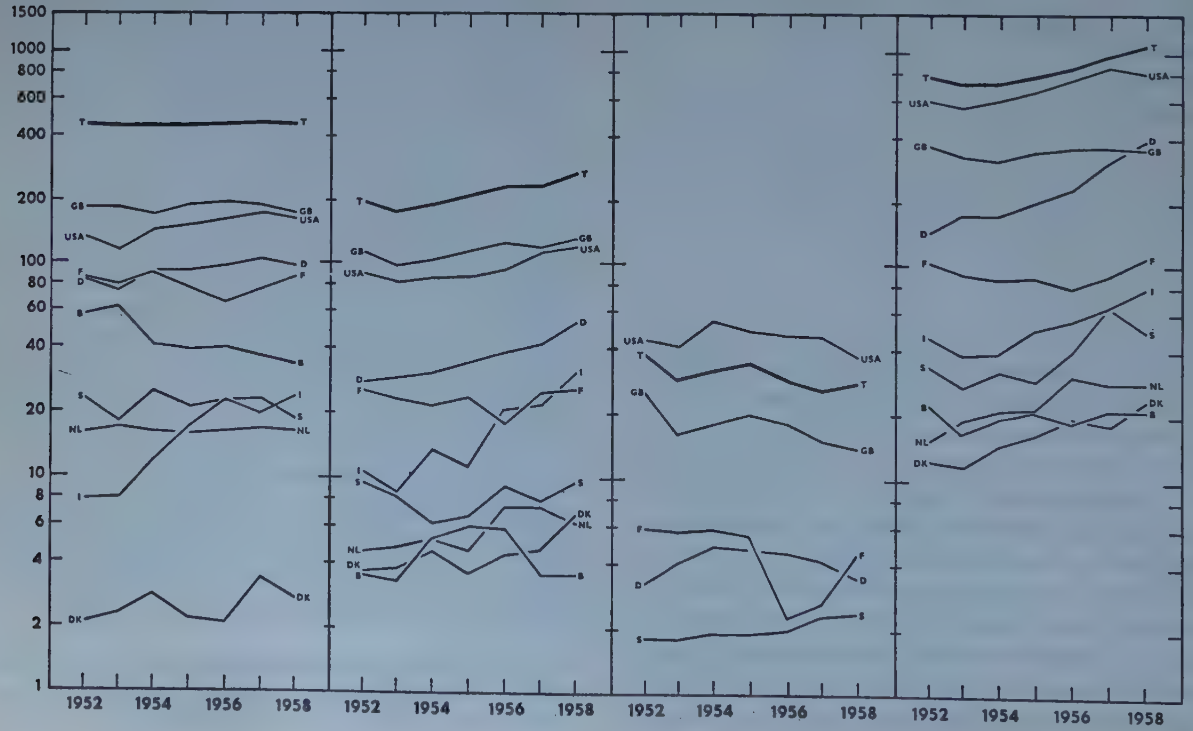
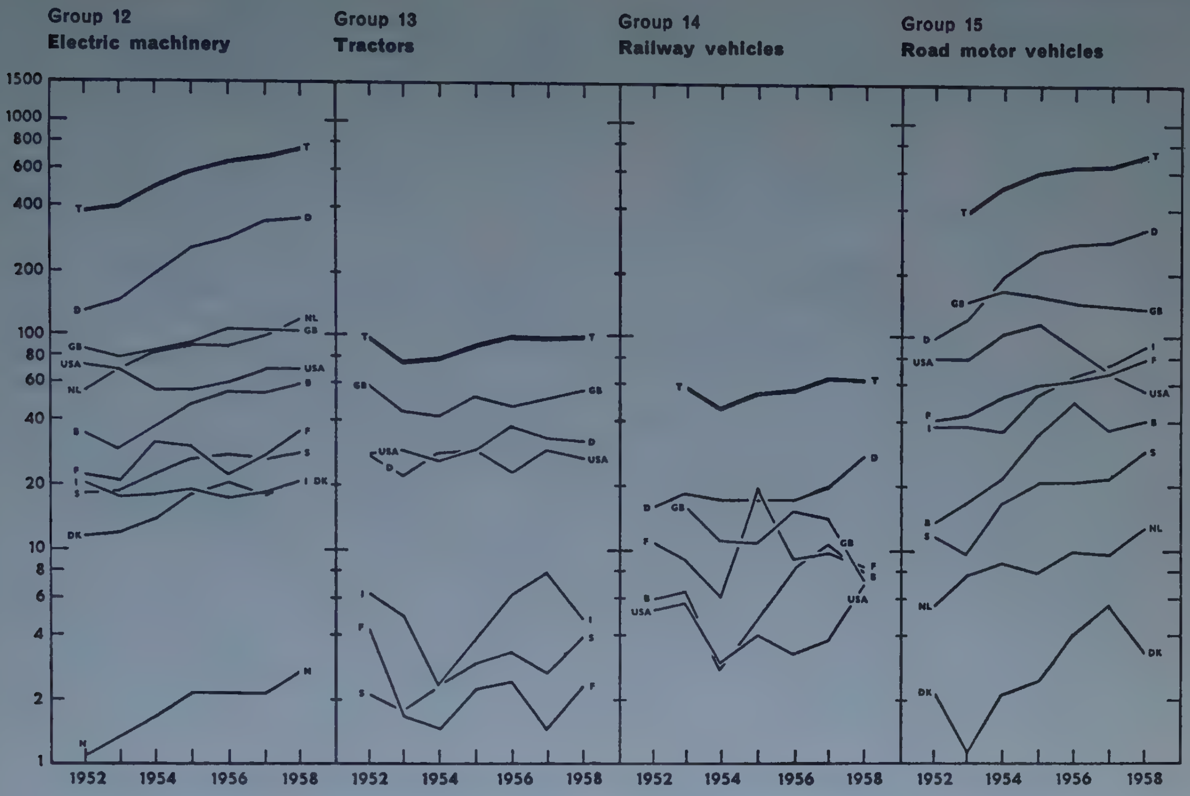


CHART 2 (*continued*)

To Western Europe



Group 12 Electric machinery

Group 13 Tractors

Group 14 Railway vehicles

Group 15 Road motor vehicles

To third markets [b]

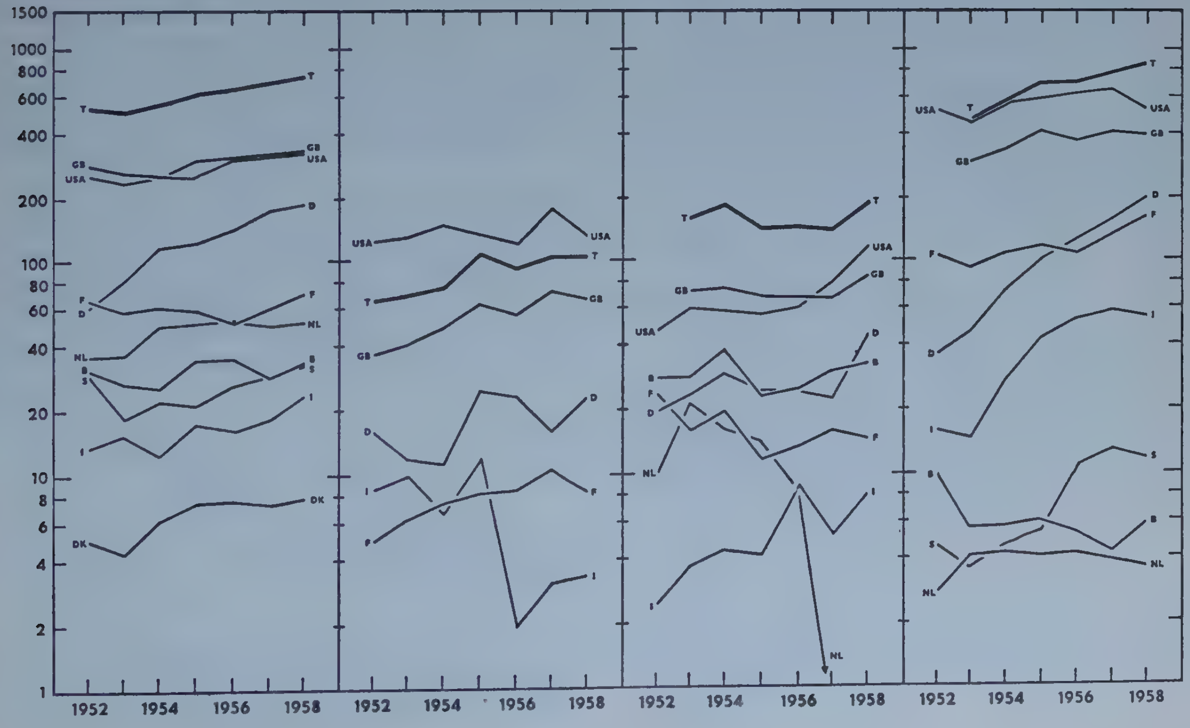


CHART 2 (*concluded*)

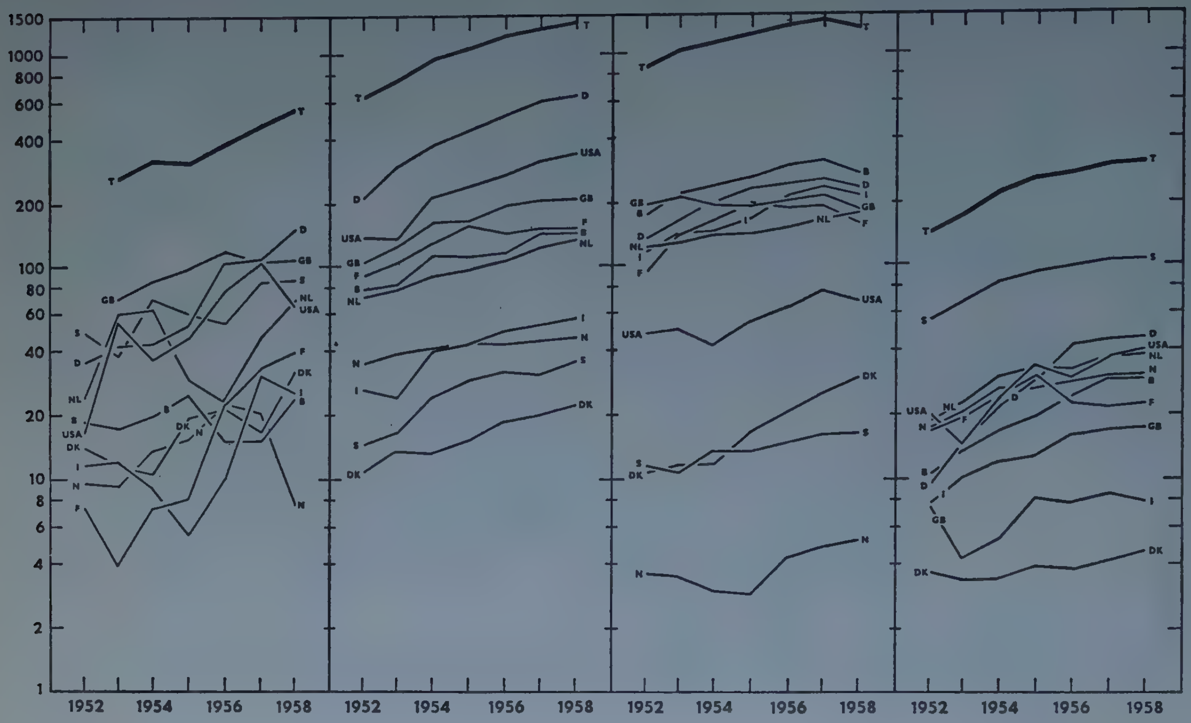
To Western Europe

Group 16
Other vehicles

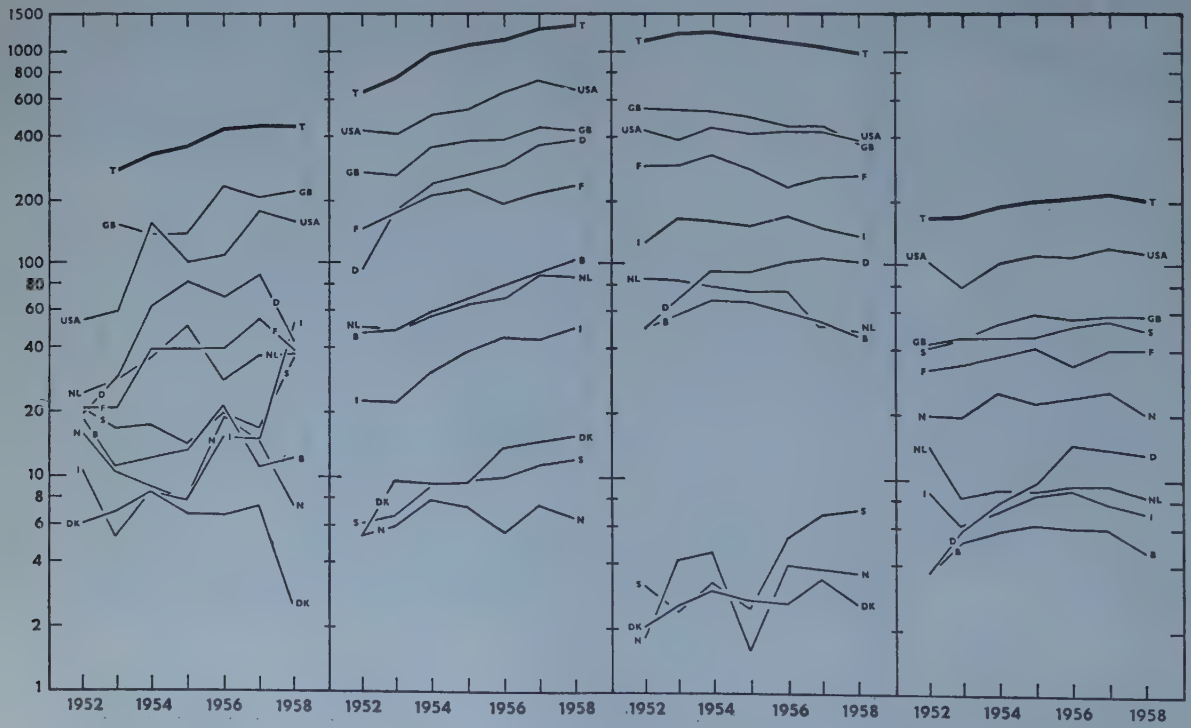
Group 17
Chemicals

Group 18
Textile manufactures and clothing

Group 19
Paper, manufactures of wood and paper (excluding furniture)



To third markets [b]



the export performance of the United States does not, in general, emerge unfavourably from a comparison with that of the majority of the western European countries; and second, the rapid growth of west German exports explains almost the entire improvement in western European exports. The special factors underlying the upsurge of west German production and exports during the fifties, and the grounds for expecting a slower rate of advance in the years ahead, are well known.[14]

Table 6 shows the change from 1954 to 1958 in imports from the United States into nine countries as a percentage of their total imports of selected manufactures. Only in western Germany did the share of the United States in general increase; elsewhere the share either decreased or remained the same,[15] even though all the countries illustrated pursued relatively liberal and non-discriminatory import policies. Of some 150 observations in the table no significant change in the United States export share occurred in one-third; of the remainder its share increased in one-third and decreased in two-thirds. Given the very large share of the United States in total imports into Canada and Mexico, the percentage could move significantly in one direction only, but, as the table shows, the United States share remains high. In Venezuela, South Africa, and Australia, United States exports have developed relatively more favourably — in large part undoubtedly due to the relaxation of dollar import restrictions. In view of the keen competition which United States exports encounter in third markets from west German exports it is worth noting that United States' deliveries constitute a substantial share of several groups of west German imports.

Yet even if the decline in the United States share of world exports of manufactures can for the most part be ascribed to the rapid increase in west German (and Japanese) exports,[16] this cannot in itself explain away the weakening of the American balance-of-payments position compared with that of other industrial countries which are equally exposed to west German and Japanese competition. Some, admittedly incomplete, evidence points to the conclusion that during the last two decades cost levels in western European manufacturing industry have declined in relation to those in the United States. Adjusted for exchange rate changes, hourly earnings in manufacturing in four western European countries have since 1937 decreased relatively to earnings in the United States approximately as follows: France, 15 per cent; western Germany, 50 per cent; Switzerland, 35 per cent; the United Kingdom, 30 per cent.

These figures indicate a particularly large competitive gain for western Germany. However, before the war the German currency was overvalued in relation to both the dollar and other European currencies, and the German balance-of-payments position was safeguarded only by means of comprehensive controls. Moreover, in most western European countries part of the relative decline in wages vis-à-vis those in the United States has probably been offset by their slower rise in productivity. But this difference in productivity growth can scarcely have counterbalanced more than some 15 percentage points of the relative decline in western European wages;[17] and, while it may be that in pre-war years the dollar was to some extent undervalued, this was wholly or in large part due to the lower levels of capacity utilization and employment in the United States than in most western European countries. Finally, American tariffs have since been considerably reduced — a decline which has been little more than partly compensated by more liberal western European import policies in the last few years.

As was stated earlier,[18] the United States had in the early post-war years a large competitive advantage over western Europe, where post-war reconstruction was under way and the expansion of exports hampered by the insistent pressure of domestic demand. This competitive advantage has since diminished.

The Outflow of Capital from the United States

Fluctuations in direct investments abroad would appear to have occurred mainly in response to changing levels of economic activity both in the United States and elsewhere; but changes in interest rates and credit conditions probably also exerted a powerful, direct effect on new issues and 'other long-term invest-

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[14] See the *Economic Bulletin for Europe*, Vol. 11, No. 3, p. 2.

[15] Only a change by three percentage points has been considered significant (from 3 to 6, or from 97 to 94).

[16] See also *Foreign Commerce Weekly*, 21 December 1959, United States Department of Commerce; and *Analysis of Changes in United States Shares of Export Markets for Manufactures, 1954-1958*, United States Department of Commerce, 1959.

[17] According to M. Frankel (in *British and American Manufacturing Productivity*, University of Illinois, 1957, p. 103) American productivity in manufacturing rose by nearly 10 per cent more than in Britain between 1937 and 1955. The annual rates of growth of productivity gain are estimated at 2.2 and 1.7 per cent respectively.

[18] *Economic Bulletin for Europe*, Vol. 11, No. 3, p. 18.

Captions and notes to Chart 2

B	Belgium-Luxembourg	N	Norway
D	Western Germany	NL	Netherlands
DK	Denmark	S	Sweden
F	France	USA	United States
GB	United Kingdom	T	Total excluding USA
I	Italy		

Sources: Economy Survey of Europe in 1956, 1957 and *1958*; OEEC *Statistical Bulletins — Foreign Trade*, Series IV.

[a] Figures for 1958 have been derived by multiplying exports in 1957, at 1951 prices, by the ratio of exports in 1958 to exports in 1957, at current prices.

[b] Excluding western Europe and North America.

TABLE 6

Imports into nine countries from the United States as percentages of total imports of selected commodities

SITC	Commodity	Canada		Mexico [a]		Venezuela [a]		Australia [a]		Union of South Africa [a]		Belgium-Luxembourg		Western Germany		Netherlands		Switzerland [a]	
		1954	1958	1954	1958	1954	1958	1954	1958	1954	1958	1954	1958	1954	1958	1954	1958	1954	1958
681	Iron and steel	77	75	67	70	40	47	21	9	41	9	12	5	4	7	9	6	14	6
	of which :																		
681-04	Joists, girders, angles, etc.	79	72	77	73	5	6	6	8	2	—	2	3	—	—	—	—	2	1
681-05	Universals, plates, etc., uncoated	86	87	100	100	47	18	—	—	—	15	25	9	11	20	5	2	3	1
681-13	Steel tubes, etc., welded or drawn	77	74	64	58	47	58	40	15	16	13	2	3	—	6	2	2	—	—
711	Power-generating machinery, excluding electrical	82	82	86	77	69	65	14	17	9	12	27	14	9	25	22	15	15	14
712	Agricultural machinery and implements	97	97	97	93	91	87	27	28	56	48	4	6	—	12	2	1	10	11
713	Tractors, other than steam	95	95	94	80	96	89	48	41	48	31	8	4	—	3	7	3	48	45
714	Office machinery	86	75	68	42	55	53	17	15	40	23	29	19	32	30	24	29	49	40
715	Metalworking machinery	84	78	83	82	55	34	18	22	28	20	16	9	29	34	20	16	13	7
	of which :																		
715-01	Metalworking machine tools	82	74	75	68	38	43	19	17	7	5	14	7	38	31	14	10	16	8
716	Mining, construction, etc., machinery	87	87	84	79	77	78	25	29	25	30	14	11	21	21	13	11	15	13
	of which :																		
716-03	Conveying, hoisting, etc., machinery	96	93	96	94	89	87	56	67	37	50	19	18	45	47	13	17	3	6
721	Electrical machinery and appliances	88	79	82	76	56	56	6	10	10	10	24	9	11	18	4	5	8	8
732	Road motor vehicles	90	75	98	90	91	74	11	8	40	21	27	15	4	5	10	3	14	5
	of which :																		
732-01	Passenger vehicles	67	35	93	81	89	66	6	5	32	17	5	15	—	3	3	1	6	6
861	Scientific, medical, etc., instruments	84	80	69	66	55	64	7	16	23	29	16	14	26	25	12	14	12	14
862	Photographic supplies	82	78	88	82	75	65	28	28	38	52	40	46	19	24	14	17	35	41

Source : OEEC *Statistical Bulletin, Foreign Trade,* Series IV.

[a] Percentages based on partner-country data (United States, United Kingdom, Belgium-Luxembourg, France, western Germany, Italy, and the Netherlands).

TABLE 7

Exports of private capital from the United States

Millions of dollars

	1954	1955	1956	1957	1958	First three quarters 1959
To all areas . .	1619	1211	2980	3211	2924	1566
of which :						
Western Europe	252	211	742	408	442	380
Canada	443	306	967	936	947	644
Latin America .	501	378	826	1416	594	258
By types [a]						
Direct investments . . .	664	779	1839	2072	1135	1008
New issues . .	309	128	457	597	956	448
Redemptions .	−124	−190	−169	−149	−85	−70
Other long-term	135	303	319	383	561	343
Short-term . .	635	191	534	308	357	−163

Sources : As for Table 5.

[a] A minus sign indicates net capital imports.

ments '. With the recovery and rapid expansion of activity at home and abroad, direct investments tripled from 1954 to 1957 (see Table 7); those in western Europe, which accounted for a minor but increasing share of the total, had reached their peak by 1956, but rose again in the first half of 1959 at a time when capital exports to Canada and Latin American countries were still declining. As international activity revived, direct investments in the two latter areas resumed their upward course in the second half of 1959.

New issues reached their highest annual rate in the first half of 1958, promoted by easy credit conditions in the United States and a large spread between long-term interest rates in Canada and the United States. Issues on western European account were also facilitated by similar conditions, and attained a high value only in 1958.[19] Following the restriction of credit in the United States after mid-1958, new issues fell sharply, and remained on a low level during 1959.[20] Provided that economic expansion is maintained in North America and other areas, total exports of United States private capital may be expected to resume and continue their rise in the future.

Exports of United States Government capital, like those of private capital, have strongly increased in recent years, although their high level in 1959 is plainly exceptional. By far the largest part of the increase has consisted of loans to Latin American and other less industrialized countries and there is good reason to believe that the rise in this sector will continue, whereas military transfers (chiefly to western European countries) will probably fall, to an increasing extent, in the years ahead. Since military assistance and the corresponding delivery of goods from the United States are mutually tied, neither changes in military grants nor in some other forms of official financial assistance will directly affect the balance of payments as much as the amounts involved might suggest. In short, with military grants and official capital exports moving in opposite directions, the net effect on the American balance-of-payments position will probably be quite small. If, in this situation, private capital exports continue to rise, an increase in total unilateral transfers and capital exports would be entailed. Conversely, an increase in foreign, and particularly western European capital exports to the United States is to be expected in consequence of the relaxation or removal of exchange restrictions in western European countries, and the rise in western European commodity exports to the United States. But foreign private capital exports to the United States are only a small proportion of this flow.

Clearly, the total net flow of all private capital will be quite sensitive to changes in profit levels and interest rates in the United States relative to levels in other countries. In western Europe, the movement towards systematic economic integration has in the last few years been an unquestionably important factor in inducing governments to pursue cautious economic policies so as to secure an advantageous competitive position. It is impossible to judge whether this attitude

TABLE 8

Net exports [a] of United States Government capital by destinations

Millions of dollars

	All areas	Western Europe	Latin American Republics	International institutions	Other
1953	218	−154	345	−2	25
1954	−93	−202	34	−1	76
1955	310	48	51	−2	213
1956	626	58	97	33	438
1957	963	373	146	4	440
1958	963	40	468	−5	460
1959 (First three quarters) . . .	1 953	−114	191	1 375 [b]	501

Sources : As for Table 5.

[a] A minus sign denotes capital imports.

[b] Subscription to the International Monetary Fund.

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[19] The distribution by areas of new issues in 1957 and the first half of 1958 was as follows (millions of dollars):

Western Europe	110
Canada	637
Other countries	105
International institutions	466
Total	1 318

[20] However, new issues on Canadian account increased by about $70 million in the third quarter.

will survive only the first stages of the venture into the unknown, as no more than part of a contest for initial positions, or whether it will endure. However, it is probable that some of the important effects of economic integration on the level of activity will result from the initiation of a process of structural changes in the western European economy. This process will provide a stimulus to both private and public investment, of which there will hardly be a counterpart in the American economy. A considerable part of American capital exports to western Europe is already prompted by the desire to establish branch factories or acquire interests in firms operating in the new market organizations, and this development may well continue and grow in importance.

The Outlook for the United States Balance of Payments

In the first three quarters of 1959 the United States had a deficit on its balance of goods and services, if military transfers are excluded; if these are included, it had a surplus of only about one-fourth of 1 per cent of gross national product. This was clearly an abnormal situation for the largest and richest industrial economy of the world. Since the major part of the increased loss of international liquidity by the United States in recent years was due to the diminished surplus on goods and services, the main problem centres on the possibilities for an improvement in the American goods and services balance; which means, in practice, mainly the merchandise balance. Moreover, since there are strong structural tendencies towards an increase in American net imports of primary goods,[21] any improvement must mainly be sought in the balance of trade in manufactures. In discussions of the balance-of-payments problem, it is frequently stated that a major contribution to its solution must come from an increase in the aid extended by western Europe to the industrializing countries. But, while it is true that an increase in financial assistance provided by western Europe is desirable, it should be borne in mind that in real terms it is now western Europe — with a huge surplus on its balance of goods and services — and not the United States that makes a large net contribution to the real resources of the rest of the world. The more basic task is therefore to increase the contribution of the United States in terms of real resources — and to do this in a way which is not detrimental to the further expansion of trade.

There would appear to be three principal ways by which this could be achieved: a rise in the level of western European activity in relation to that in the United States; an increase in western European capital exports; and a change in commercial and exchange rate policies.

Apart from the effects of special events — the war in Korea, the Suez crisis, and the American steel strikes of 1952 and 1959 — the short-term changes in the relative trade positions of the United States and western Europe in the post-war period have mainly depended on levels of activity within these two areas. Although output has varied more widely in the United States than in western Europe, the trade balances of the two areas have been more strongly influenced by activity changes in western Europe than by those in the United States. This has been partly an effect of the different production structures of the two areas, but mainly of the operation of the western European economy at levels closer to full employment and full capacity utilization than in the United States.

The American payments position during 1958 and the early part of 1959 was, without question, unfavourably affected by the slightly earlier and more rapid recovery in the United States than in western Europe; at the present time the American balance of payments would be strengthened either by a decline in domestic activity or by a further rise in western Europe. A fall in the level of activity in the United States is — apart from its backwash effects on the balance of payments — hardly a desirable development; on the other hand, for most western European countries a further rise in activity levels may be considered both possible, desirable, and probable. However, the balances of trade of western Europe with other areas, and hence the foreign balance of the United States, are probably less sensitive now than previously in the post-war period to changes in western European activity; for the elasticity of supply of primary goods has risen, and the growth in recent years of physical capital in western Europe has raised the margin of increase in output generated by an increase in employment. A further rise in activity in western Europe will both increase imports and reduce the availability of goods for export; but it is virtually certain that neither reaction will be as strong as hitherto, and that any significant strengthening would come only if excess demand were widespread on western European labour markets. While in principle an upswing of demand could serve as a means of raising wage levels in western Europe in relation to those in the United States, western European monetary authorities appear to have become more, rather than less, concerned about the wage-effects of the relation between demand for, and supply of, labour. These factors tend to limit the improvement in the foreign balance of the United States that might otherwise be expected from a higher level of activity in western Europe.

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[21] See the *Economic Survey of Europe in 1957*, Chapter V, section 2. It should be mentioned, however, that less protectionist agricultural policies in western Europe would increase United States exports of agricultural staple commodities to western Europe.

For the same reasons, no very great improvement in the American foreign balance can be expected from an increase in western European credits and aid to primary-producing countries. Even if such financial assistance were not tied to deliveries from the financing countries (in contrast with now customary practice), it would lead to an expansion of demand for exports — chiefly for exports from western Europe. And assuming that the increase in financial assistance extended by western European countries to primary producers would be contained by the limited scope for rising employment in western Europe (if it were not more tightly bridled by other considerations), it could hardly suffice to dispose of more than a minor part of the American balance-of-payments deficit. Indeed, from the point of view of the international payments positions of the United States and of western Europe, there is in principle no difference between expansions of credit by western European countries that are calculated either to promote investment and activity in western Europe or to finance increased expenditure in primary-producing countries. In both cases the major part of the demand pointed towards the industrial countries would be directed towards western Europe, and — provided that monetary authorities were determined to prevent excess demand for labour — the improvement in the foreign balance of the United States would be limited by the size of the margin for expanding employment in western Europe. Yet notwithstanding the desire of monetary authorities to maintain price and wage stability, continued expansion in western Europe may generate an accelerated rise in wages. There are signs of such a development in western Germany, the United Kingdom and several other countries.

There are other more direct methods by which the competitiveness of American industry relative to that of western Europe could be raised. While a selective revaluation of western European currencies would clearly be premature so long as significant trade and payments restrictions exist, the tendency for prices, and thereby also wages (in domestic markets), to rise as western European activity expands could be counteracted by a further liberalization of western European import policies, encompassing not only the removal of remaining discrimination towards dollar imports, but also the reduction of tariffs on manufactures and the gradual abandoning of agricultural protectionism. Such measures would at the same time represent an important advance towards a more rational structure of international trade. And they seem the more necessary inasmuch as the movement towards western European economic integration will involve discrimination, in a new form, against dollar imports.

3. NOTE ON DEVELOPMENTS DURING 1959 IN YUGOSLAVIA

The foregoing discussion has mainly dealt with the course of the economic re-expansion in the industrial countries of western Europe and there has therefore been only passing reference to Yugoslav economic developments in 1959. These developments, and the prospects for the Yugoslav economy in 1960, are summarized in the following note.

Short-term economic fluctuations in Yugoslavia spring almost entirely from the alternation of good and bad harvests. In the past few years, changes in economic variables in Yugoslavia have been influenced by two main factors: one is the harvest result, the other is the fairly steady, and even accelerating, growth of output of capital goods. Between 1958 and 1959, the outstanding change was the increase in agricultural output of 35 per cent.[21a] Since a large part of the crop is delivered to the State at guaranteed minimum prices, there was an almost commensurate increase in agricultural income, which was more rapid than for the urban population. But in the preceding year the situation had been the opposite. The harvest cycle is reflected in alternate rises in agricultural and urban income and consumption.

Selected indicators of economic change in Yugoslavia

Index numbers of volume, 1952 = 100

	1957	*1958*	*1959*	*1960 Plan*
Gross national product	176	178	210	227
Industrial output	189	209	237	270
of which :				
Capital goods	193	219	250*	295*
Intermediate products	187	207	234*	269*
Consumers' goods	196	215	241*	269*
Output per worker in industry	123	124	131	140
Agricultural output	185	164	219	212
Gross fixed investment	160	168	197	215
Personal consumption	158	164	202	216
Exports	164	185	211	252
Imports	165	179	184	206

Sources : National statistics; and *Službeni list* No. 52, 30 December 1959.

In spite of the rapid rise in disposable income in 1959, retail prices were almost stable. The table shows that in 1959 real wages in industry increased appreciably faster than productivity; since this was not accompanied by price increases, there must have been a reduction in the total of other costs and profits. Taxes on profits and wages were cut by some 15 per cent per unit of output, but this measure, however, is not expected to impinge on the future rate of economic growth, since it merely recognizes that a change towards quicker-yielding investments [21b] has made possible the maintenance of the short-term rate of growth by a lower rate of accumulation.

[21a] The background to the recent expansion in agricultural output and productivity is given in an appendix to Chapter VII below.

The volume of imports, which had increased by as much as 30 per cent in 1957 (due in part to the combined effect of credit deliveries of raw materials and equipment, and shipments of surplus commodities from the United States), increased by 8 per cent in the following year, and was again concentrated on food, crude materials and equipment. In 1959, however, the increase in the import volume was more modest — 3 per cent — and mainly consisted of augmented imports of crude materials, which rose in volume by 10 per cent. In this class of imports, fertilizers have been an important item in recent years; when, in a few years, fertilizer plants now under construction are completed, this expansion is expected to stop. Imports of equipment fell by more than 15 per cent in 1959, following the completion of deliveries under old contracts and in consequence of the higher output from the domestic capital-goods industry. The expansion of private consumption during 1959 effected little change in the structure of imports; there was a shift from textiles to durables, but the increase in food imports was no more than a rise in wheat deliveries before the new harvest.

The volume of exports increased in 1959 by 14 per cent, or at about the same rate as in 1958. The expansion chiefly consisted of exports of manufactures, both capital goods and consumer goods, while food exports, following the poor harvest in 1958, fell by some 10 per cent. The decline in food exports largely arose in deliveries to western European markets, whereas most markets participated in the increase in exports of manufactures.

Some important changes in price policies were made during 1959. First, the prices of some services were revised so as to bring them closer to costs. At the end of the year, house rents were on average more than doubled and electricity and transport tariffs were increased. As a result of these adjustments, and the elimination of subsidies, it should be possible to raise the funds necessary for maintenance and expansion within the sectors themselves. However, the elimination of subsidies will raise the cost of living, and, with a view to avoiding a fall in real wages, a 10 per cent increase in wages and salaries took effect on 1 January 1960. Second, the system of multiple exchange rates was simplified by a reduction of the number of different exchange rates from 35 to 11 for exports and from 24 to 9 for imports and a narrowing of the spread between the rates. This measure was a continuation of earlier efforts to adapt the domestic price structure to that prevailing on international markets, and represents an important step towards the introduction of a single rate of exchange. During the year, the system of import licences was abolished, and the only control of imports will henceforth be in the form of foreign-exchange allocations. On the export side, the main changes were a simplification and relaxation of the system of export controls. Finally, during 1959 enterprises were granted greater freedom in the use of their depreciation funds and all other, previously partially blocked, accounts and were allowed to retain up to 50 per cent of the profit arising from productivity gains between 1958 and 1959. These steps will make possible a further increase in both wages and investment — particularly in manufacturing industry.

A slacker pace of economic growth may be expected in 1960 than in 1959. Nevertheless, the official forecast is of an 8 per cent increase in gross national product, compared with an increase of only 1 per cent in 1958 (also a year of slower growth) over 1957. The difference is largely explained by the expectation that agricultural output can be maintained at the 1959 level, through a certain drop in crop production, balanced by a substantial increase in output of livestock products. In industry, the shift towards metal-using industries is expected to continue in 1960 (output of electric machinery and equipment is even planned to increase by 33 per cent against an average of 14 per cent) as a result of the anticipated rise in exports, the increasing importance of durables in private consumption, and higher domestic investment in machinery and equipment.

As a result of the bumper harvest of 1959, food imports in 1960 are expected to dwindle to 4 billion dinars from 30 billion dinars in 1959. Simultaneously, exports of food — particularly of livestock products and maize — are expected to increase. The bulk of the anticipated increase in exports will, however, consist of manufactures, whose share in the total value of exports has risen from 20 per cent in 1950 to 37 per cent in 1959. Their further expansion in 1960 will be facilitated by the extension of credits of $100 million to overseas under-developed countries for the purchase of Yugoslav capital equipment.

[21b] The freeing of enterprise funds and the reduction in taxation on profits, referred to below, are likely to result in a substantial increase in investment in enterprises. At the same time, infra-structure investment is expected to grow at a much lower rate than in previous years. Hence, quick-yielding investment will constitute a higher proportion of total fixed investment and on this basis the government is planning for a lower investment ratio in the future.

4. PATTERNS OF INDUSTRIAL DEVELOPMENT

In the short run, a country's total industrial output will recover more quickly if its industry is heavily concentrated on branches in which demand rises fast. Thus the resumption of rapid growth achieved by Italy in 1959 was in large measure promoted by the great weight of the chemicals industry in the Italian industrial structure. In the longer run, too, economic growth is plainly related to the industrial structure and how it changes. The relationship (or to be exact — congeries of relationships) is seen most clearly if only structural changes by broad industrial sectors are considered — a familiar example is the fall, during the process of economic growth, in the shares of both manpower and total output in agriculture with a corresponding rise in those of industry and services. It appears to be more difficult to identify long-term relationships between economic growth and the structure of manufacturing industry. Indeed, for an already highly developed economy, a high degree of adaptability of the structure of manufacturing industry may be more essential than any specific structure.

Between 1950 and 1959, the output of the western European chemicals industry more than doubled, and that of the engineering industry nearly doubled; in the mining industry in contrast, the increase was only one-fourth, and not much more than one-tenth in the textiles industry (see Chart 3). Those countries in which at the beginning of the period there was a heavy concentration on the less dynamic industries might have been expected to develop at a slower pace than others; but the drawbacks of such a structure are in some degree offset by the structural adaptation which accompanies overall growth. Italy is a case in point. It achieved a marked increase in industrial output during the fifties, even though the textiles industry had a heavy weight at the beginning of the period. Italian experience also points to the often decisive importance of special factors: the discovery of petroleum and natural gas deposits afforded the basis for an expanding chemicals industry.

The chart provides little substantiation for the view that industrial growth and structural change are closely correlated; the spread between the growth rates of given industries in the rapidly advancing countries is almost the same as in those with slow overall growth. Nor does the extension of the comparison to longer periods, 1936/38 to 1959, and 1926/29 to 1959, respectively, yield any more definite connexion. In nearly all the countries shown, the chemicals or engineering industries developed at the highest rates, and the mining or textiles industries at the lowest; in some countries, however — Austria, the Netherlands and Sweden — the steel industries were in the lead. A more refined industrial classification would probably reveal significant individual differences in industrial development from country to country, with — among the highly industrialized countries — a trend towards specialization which is more advanced within broad industrial groups than between them. Some support can be drawn for this conclusion from the following account of certain aspects of the development of the engineering industry in western Europe during the fifties. The ratio of trade to output rose during the decade in most branches of this rapidly expanding industry; and the major part of the trade expansion arose in intra-western European trade and exports to North America.

In the context of the present chapter, the principal consequences of these developments are those affecting the behaviour of the western European economy during short-term fluctuations in activity. It has been estimated [22] that in 1957 more than 50 per cent of total sales of engineering goods on the western European market consisted of capital goods, about 20 per cent of consumers' durables (including passenger cars), less than 15 per cent of products for public consumption (including armaments [23]), and the remaining 15 per cent of spare parts and repair work, chiefly for other industries.[24] Given the increasing share of the engineering industries in the total output of manufacturing industry, western European industry should have become more sensitive to normal cyclical fluctuations. And the higher ratio of trade to output — particularly the relatively large and closely-knit trade among the highly industrialized countries — certainly facilitates the propagation of short-term fluctuations in economic activity from one country to the next. In this respect the changing structure of industry has reinforced the effects of other developments, such as the continuing liberalization of international transactions, the increasing importance of international movements of private capital, and the trend towards systematic integration within groups of western European countries.

The Engineering Industries

Engineering output grew during the fifties at a faster pace than the production of other industries, except chemicals. This is true of almost all western European countries although there were great divergences in the

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[22] *The Engineering Industries in Europe*, OEEC, Paris 1958.

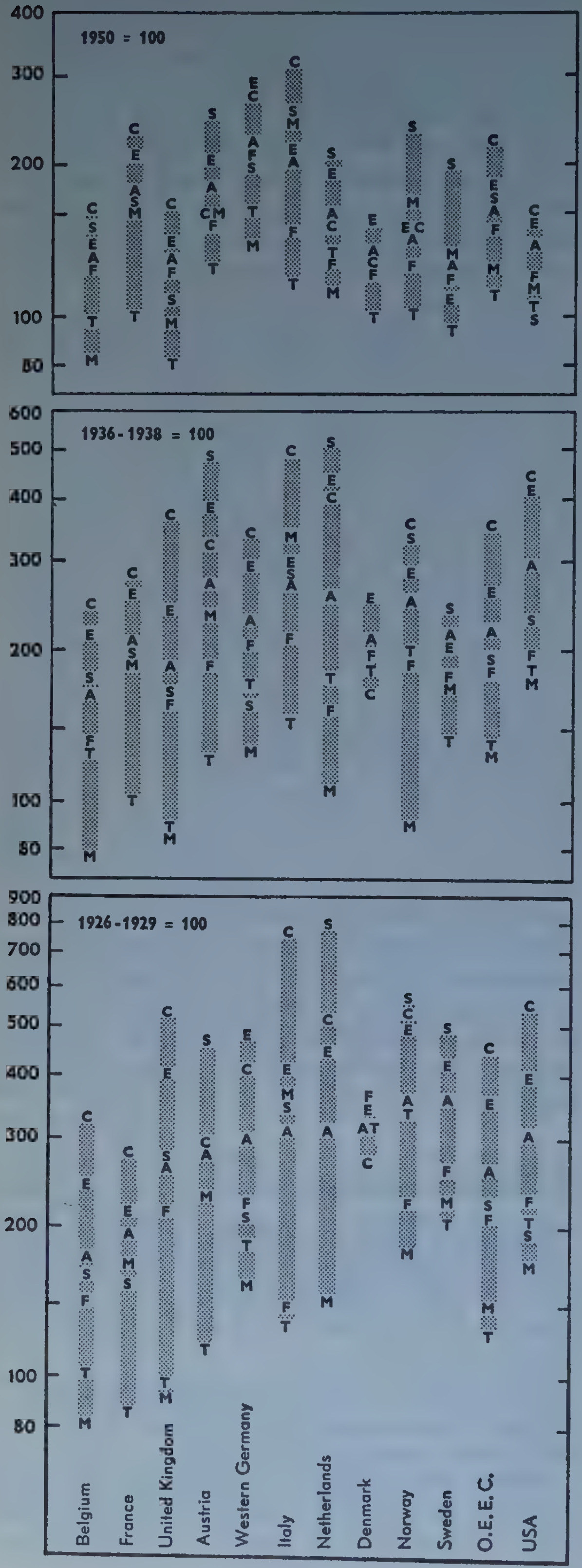
[23] These are not included in delivery data quoted below; nor is SITC 691 (Ordnance) included in trade data.

[24] Imports from countries outside western Europe, included in these figures, were small — only about 3 per cent of total availabilities — while exports to such countries, not included in the percentage distribution, amounted to about 20 per cent.

CHART 3

Growth of industrial output, 1926-1929 to 1959, by main branches

1959 output as a percentage of the average in three base periods : 1926-1929, 1936-1938 and 1950



Captions and notes to Chart 3

A	Total industrial production	**M**	Mining
C	Chemicals	**S**	Base metals
E	Engineering	**T**	Textiles
F	Food		

Sources : OEEC, *Statistical Bulletins — Industrial Statistics, 1900-1957* and OEEC, *Statistical Bulletins — General Statistics.*

NOTE. — *1926-1929 = 100:* But for chemicals in France, 1928/29 = 100. *1936-1938 = 100:* But for food in Austria and food and textiles in the Netherlands, 1938 = 100.

rates of growth, which can be explained, in the main, by three interrelated factors: first, and clearly the most important, was the overall economic growth of the country, and the consequent increase in total demand for investment goods and consumers' durables; second, as the flow of exports to western European countries was facilitated by trade liberalization, and overseas demand grew, a country's competitiveness on export markets strongly affected the rate of expansion of its engineering output (and, indeed, of total output); [25] third, the concomitant growth of imports competing with domestic industry affected the growth of output.

Chart 4 sheds some light on the interrelations of these factors in nine western European countries between 1952/54 and 1956/58. On average, rising exports accounted for one-third of the growth in output, while one-fifth of the increase in domestic availabilities came from larger imports. In Belgium, Italy, the Netherlands, Norway and the United Kingdom, the ratio of export growth to output growth was roughly equal to the average ratio of one-third. In western Germany the rise in exports accounted for more than half of the rise in output; larger imports accounted for only about one-sixth of the increase in availabilities. In Denmark and Sweden the increase in exports was still larger, in relation to the increase in output, than in western Germany; but — as in Belgium, the Netherlands and Norway — their imports accounted for an outstandingly large part of the comparatively modest rise in domestic availabilities. France was the sole country in which the growth of output was almost entirely based on an expanding domestic market and exports have begun to rise appreciably only in very recent years. During most of this period French industrial growth was firmly based on the domestic market, as a result of import controls and the limitation of exports due to inflationary demand pressure, which discouraged exports; there was no definite lift in the export ratio before the devaluations of 1957 and 1958. In the United Kingdom, on the other hand, a vigorous effort to promote exports — while starving the home market — had been made in immediate post-war years, and from 1952 onwards the export ratio changed little.

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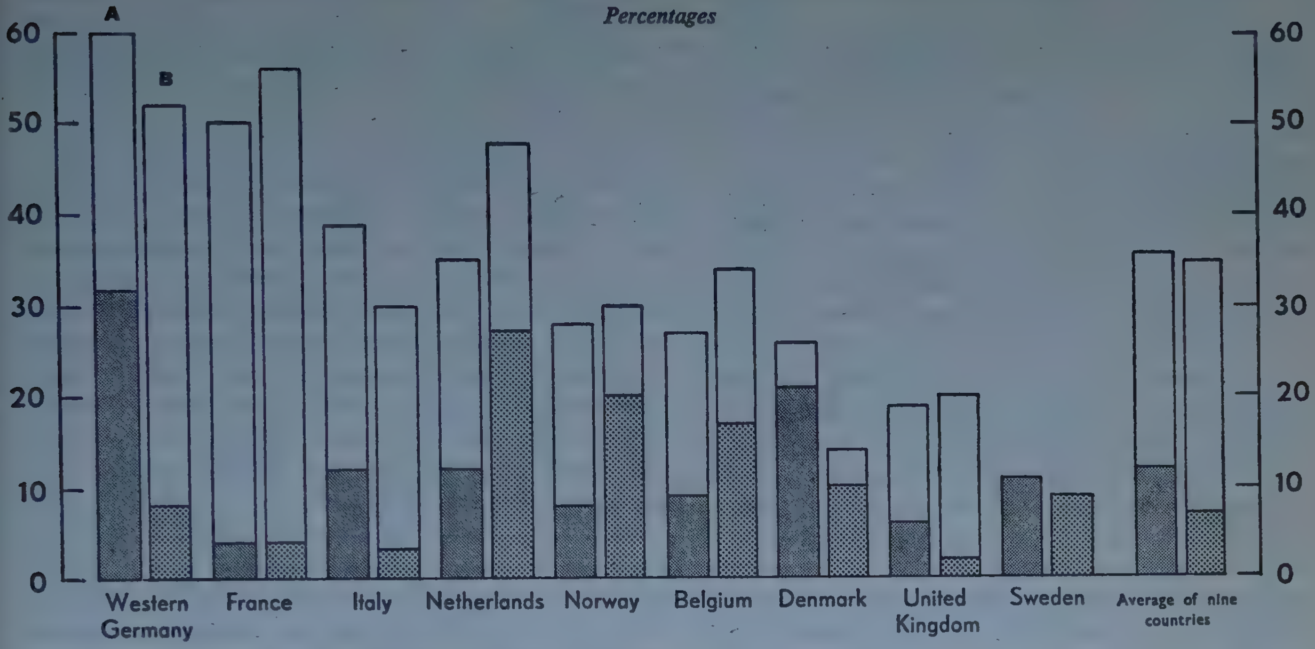
[25] At the same time, competitive positions were apparently influenced by margins for domestic expansion, mainly in terms of labour supply. See *Economic Survey of Europe in 1958*, Chapter III, section 2.

CHART 4

Changes in volumes of engineering output and trade, 1952-1954 to 1956-1958

Percentages



Column A: increase in volume of output between 1952-1954 and 1956-1958. The shaded area shows the part of this increase due to higher exports.
Column B: increase in volume of domestic consumption. The shaded area shows the part of this increase due to higher imports.

Sources and methods : See Appendix B.

Data in current prices on deliveries [25a] and foreign trade for 12 countries and for five major groups of engineering goods are set out in Table 9 (see also Appendix Table XIX).

Between 1952 and 1958 output of metal manufactures (SITC 699) and of non-electric machinery (SITC 71) increased in these 12 countries by about 50 per cent, in current prices; output of other types of engineering goods increased by about 70 per cent. For the five groups combined, both the increase in output and the increase in availabilities (output minus exports plus imports) was 64 per cent, which implies an almost proportionate rise in the export surplus. For the area as a whole there was a slight reduction in export and import ratios; but if trade *within* the group of 12 countries is included, both export and import ratios rose.

[25a] That is, factory deliveries, or output less increases in factory stocks. As changes in these stocks are for the most part small, the term 'output' has been used in the text instead of 'deliveries'.

TABLE 9

Deliveries, foreign trade and availabilities of engineering goods in twelve western European countries, 1952 and 1958 [a]

Millions of current dollars

	Deliveries			Intra-trade			Exports to other countries			Imports from other countries			Domestic availabilities		
	1952	1958	1958 as percentage of 1952	1952	1958	1958 as percentage of 1952	1952	1958	1958 as percentage of 1952	1952	1958	1958 as percentage of 1952	1952	1958	1958 as percentage of 1952
Metal manufactures	1785	2681	150	261	414	159	723	858	119	27	50	185	1089	1873	172
Machinery (excluding electric)	9516	14591	153	1140	2068	181	1950	3212	165	451	584	129	8017	11963	149
Electric goods	5488	9546	174	335	840	251	932	1321	142	87	166	191	4643	8391	181
Transport equipment	8116	14008	173	600	1501	250	1601	3130	196	192	354	184	6707	11232	167
nstruments and watches . .	1112	1863	168	141	243	172	363	451	124	21	58	276	770	1470	191
TOTAL	26017	42689	164	2477	5066	205	5569	8972	161	778	1212	156	21226	34929	165

Source : Appendix Table XIX.

[a] Common Market plus European Free Trade Association (except Portugal).

TABLE 10

Deliveries and trade in metalworking machinery, 1952 and 1958

Millions of current dollars

	Deliveries		Exports		*of which* to OEEC		Imports		*of which* from OEEC	
	1952	1958	1952	1958	1952	1958	1952	1958	1952	1958
Western Germany	238	411	177.7	313.6	122.5	149.3	10.9	36.3	8.8	22.3
France	116	167	39.4	20.0	20.4	7.9	52.2	71.6	25.5	51.4
Italy	49	44	34.8	36.3	13.8	10.1	32.3	23.1	13.4	13.4
Benelux	..	..	20.0	18.2	13.0	12.4	33.8	34.7	25.8	29.3
Total EEC	..	..	271.9	388.1	169.7	179.7	129.2	165.7	73.5	121.4
United Kingdom	174	232	76.3	91.8	17.5	26.5	172.3	62.7	92.3	38.8
Switzerland	70*	95	48.3	71.8	31.6	32.3	17.9	22.7	15.9	21.1
Sweden	..	..	13.8	21.5	6.7	11.9	37.5	20.8	31.5	17.2
Austria, Denmark, Norway	..	..	5.9	9.6	2.7	4.1		30.3		26.7
Total EFTA [a]	..	..	144.3	194.7	58.5	74.8	227.7	136.5	139.7	103.8
TOTAL of listed countries	..	..	416.2	582.8	228.2	254.5	356.9	302.2	213.2	225.2

Sources : OEEC *Statistical Bulletins — Foreign Trade*, Series IV, and *The Engineering Industries in Europe*, No. 4, 1958 and No. 5, 1959; Direction générale des Douanes fédérales, *Statistique annuelle du commerce extérieur de la Suisse.*

NOTE. — Delivery data refer to machine tools (SITC 715-01), while trade data refer to metalworking machinery (SITC 715).

[a] Excluding Portugal.

The interplay of output, availabilities, and trade differed widely among the five groups of engineering goods. As a result of a small expansion in net exports, in conjunction with a relatively big increase in net imports [26] mostly from the United States, availabilities of metal manufactures, instruments and watches increased at a higher rate than output; in these groups intra-trade expanded less than output for home markets. But Table 9 suggests that in the remaining groups of engineering goods, which account for the major part of the value of total output, specialization increased within the group of 12 countries. In both groups of machinery, trade within the area grew at about twice the pace of deliveries to domestic markets, and in transport equipment intra-regional trade increased at between two and three times the speed of deliveries to domestic markets.

Machine tools account for less than one-tenth of total output of non-electric machinery and four countries — western Germany, the United Kingdom, France and Switzerland — provide nine-tenths of total western European output. Since machine tools are one of the principal types of capital equipment for producing capital equipment, it would be expected that the rates of increase of output in the machine-tool industry would be positively — though not closely — related to rates of over-all economic expansion. Between 1950-1951 and 1957-1958 output of machine tools in western Europe increased at about the same rate as all engineering products. Between 1952 and 1958, however, on account of the rapid rise in both British and west German output of machine tools from 1950 to 1952, deliveries of machine tools increased by less than one-half, while total deliveries of engineering goods increased by two-thirds (see Table 10).

The growth rates achieved for machine tools in western Europe are lower than those in the Soviet Union and other eastern European countries.[27] There is, however, a marked difference between the types of machine tool produced in western and eastern Europe and therefore in the structure of the industry in the two groups of countries. Machine tools in western Europe have traditionally been produced with skilled manpower in comparatively small plants; and the great diversity of types has meant that machine tools have been produced in relatively short series. The high rates of expansion in eastern Europe and the priority accorded to heavy industries have of course necessitated a very rapid increase in supplies of metal-working equipment. Since most of this equipment has been of standardized types, machine tools have been largely mass-produced.

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[26] That is, trade with countries other than the 12 included in Table 9.

[27] See the *Economic Bulletin for Europe*, Vol. 11, No. 1, in which Appendix Table I shows the output of the major types of machine tools to have doubled in volume in these countries between 1952 and 1958.

Output of transport equipment in western Europe increased at a very rapid pace, and — as with non-electric machinery — trade rose even faster than deliveries to domestic markets. The high degree of international specialization in this branch is presumably due to the need for a substantial domestic outlet if motor-car and aircraft production are to be competitive; in any case, production is heavily concentrated in the largest countries. Shipbuilding, which is not (or at least until now has not been) organized on mass-production lines, was long concentrated in the main shipping nations; but, as demand for new tonnage has risen during the fifties, it has increasingly become an export industry. Japan is a notable case in point, and a similar shift has taken place in Sweden, Denmark, western Germany and the Netherlands. The ratio of exports to output in western Europe's shipbuilding industry increased from less than one-fifth in 1952 to over one-fourth in 1958. Exports outside the region increased more slowly than intra-trade, while imports from overseas countries, and Japan in particular, grew at a still higher rate, yet the export surplus grew in terms of absolute volume. No detailed delivery data are available for other types of transport equipment: the expansion in their output between 1952 and 1958 was generally higher than for ships (this is true of motor vehicles and aircraft), while the expansion of output of railway equipment was lower.

Table 11 presents more information on the contribution of engineering goods to the expansion of total exports between 1952 and 1958. For the countries listed, the share of engineering products in total exports increased from 31 per cent in 1952 to 37 per cent in 1958; engineering goods accounted for almost one-half of the total increment in exports between the two years.

The Shares of Different Markets in the Expansion of Trade in Engineering Goods

The growing demand for engineering goods in western Europe, coupled with the gradual elimination of import restrictions, made for a rapid expansion in intra-regional trade in such products; between 1952 and 1958 the share of intra-trade in total exports from the twelve countries shown in the table rose from 38 to 41 per cent. Western Germany was especially well placed to respond to the growth of demand. Its abundant supply of manpower — particularly the availability of skilled workers and engineers — contributed to the rapid expansion of engineering output; and low labour costs not only enhanced the competitiveness of west German engineering output, but also limited until recently the domestic demand for consumers' durables, thus allowing the diversion to export markets of a considerable proportion of additional output. The export ratio of the west German engineering industry increased from one-third in 1952 to one-half in 1958.

While the share of total west German and Italian engineering exports going to western Europe declined between 1952 and 1958, in many of the other countries this share grew much more rapidly than that to the rest of the world; in several countries exports to western Germany were the most expansive of all. This is true, for example, of French and British exports:[28] these two countries traditionally export more to affiliated overseas countries than to western Europe, which is, however, now becoming an increasingly important export market for them. So far, this trend has been stronger in France; the United Kingdom is still less dependent on western European markets than any other country of the region. The Benelux countries also depended overwhelmingly on the western European market for the growth of their engineering exports, in large part as an outcome of their closer mutual economic ties after the formation of an economic union. The three Scandinavian countries were similarly dependent on western European markets for the expansion of exports. Italy and Switzerland were the only countries whose exports to OEEC member countries and North America rose less than exports to other markets.

Between 1952 and 1958 the North American market proved the most expansive for all western European engineering exports: the share of North America in total western European exports of engineering goods went up from 7 to 11 per cent. Switzerland did not participate in this development, for its exports of watches to the United States did not expand after 1954, and Swiss exports of certain machine tools and specialized textile machinery have encountered stiffer competition on the American market — particularly from western Germany.

Motor-cars alone accounted for three-fifths of the increase in western European exports of engineering goods to North America. This rapid growth continued in 1959, when these exports reached a value of $800 million. Since the expansion of exports was so largely concentrated on motor-cars, the major beneficiaries were western Germany, the United Kingdom and France, which together accounted for about 85 per cent of the increase in western European exports of engineering goods to North America.

But the expansion was almost exclusively confined to motor-cars only in France. Western Germany considerably increased its exports of machinery and electrical equipment to North America, to which the United Kingdom raised its shipments of jet engines

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[28] See the *Economic Bulletin for Europe*, Vol. 11, No. 2, for an account of trade relations among western European countries during 1958.

TABLE 11. — **Exports of engineering products from twelve western European countries, 1952 and 1958, by main markets**

Percentages based on current values, f.o.b

Exporting country	Year	Share of engineering products in total exports to:								Distribution by markets of engineering exports to:						Share of each country in total engineering exports to:							
		World		OEEC		North America		Rest of World		OEEC		North America		Rest of World		World		OEEC		North America		Rest of World	
			a		*a*		*a*		*a*		*a*		*a*		*a*		*a*		*a*		*a*		*a*
Belgium-Luxembourg	1952	14	28	10	42	7	17	26	0	42	96	4	11	54	−7	4	3	5	6	3	2	4	—
	1958	17		16		10		21		60		6		34		4		5		2		2	
France	1952	23	37	17	25	9	69	28	44	23	35	2	24	75	41	11	8	7	6	3	12	15	8
	1958	27		20		38		30		27		10		63		10		6		9		13	
Western Germany	1952	45	57	42	55	34	78	56	55	58	50	5	14	37	36	23	45	35	51	16	38	16	42
	1958	52		48		62		56		53		10		37		33		43		30		25	
Italy	1952	24	38	21	22	18	45	28	55	44	29	8	13	48	58	4	7	5	5	5	6	4	11
	1958	30		22		30		40		35		11		54		5		5		5		6	
Netherlands	1952	15	27	11	25	6	54	23	27	48	74	3	11	49	15	4	5	5	8	2	3	3	2
	1958	19		17		20		24		60		7		33		4		6		3		3	
Total EEC	1952	27	46	24	41	17	63	33	49	46	50	4	14	50	36	46	68	57	76	29	61	42	63
	1958	34		31		40		39		48		10		42		56		65		49		49	
Austria	1952	19	24	11	15	4	59	39	33	36	39	1	13	63	48	1	1	1	1	—	1	1	2
	1958	21		13		28		36		38		7		55		1		1		1		2	
Denmark	1952	14	32	10	36	2	11	35	45	54	75	1	7	45	18	1	2	2	3	—	1	1	1
	1958	20		17		8		37		65		4		31		2		3		—		1	
Norway	1952	9	6	6	10	2	0	17	—	41	127	2	0	57	−27	1	0	—	1	—	—	1	—
	1958	8		7		1		14		57		1		42		—		1		—		—	
Sweden	1952	27	54	19	43	19	105	46	85	46	59	4	15	50	26	5	5	7	6	3	4	5	3
	1958	34		26		44		52		52		8		40		5		6		4		4	
Switzerland	1952	52	51	43	40	61	—	61	87	44	52	19	−8	37	56	8	4	8	4	20	−2	5	5
	1958	52		43		50		69		45		12		43		6		7		6		5	
United Kingdom	1952	42	69	36	63	31	83	47	65	25	20	9	28	66	52	38	20	25	9	48	35	45	26
	1958	47		40		47		50		23		15		62		30		17		40		39	
Total EFTA[b]	1952	36	53	26	39	32	67	46	64	31	34	9	20	60	46	54	32	43	24	71	39	58	37
	1958	40		29		42		50		32		13		55		44		35		51		51	
Total of countries listed	1952	31	48	25	40	25	65	40	54	38	45	7	16	55	39	100	100	100	100	100	100	100	100
	1958	37		30		41		44		41		11		48		100		100		100		100	

Sources : OEEC *Statistical Bulletin—Foreign Trade*, Series IV. For Switzerland: Statistique annuelle du Commerce Extérieur.

[a] Share in increase between 1952 and 1958.

[b] Excluding Portugal.

and aircraft. Of western European countries, the United Kingdom is now the most dependent on the North American market for exports of engineering goods, whereas in 1952 both Italy and Switzerland had higher shares than the United Kingdom. Between 1952 and 1958 the North American market accounted for a larger share of the total increase in British engineering exports than all other extra-western European markets, although exports to the latter in 1952 were six times greater. This, of course, did not prevent the British share of the American market from shrinking, between the two years, from 48 to 40 per cent, at a time when the west German share increased from 16 to 30 per cent. In relative terms, Switzerland lost most; its share in western European engineering exports to North America fell to 6 per cent from its previous exceptionally high level of 20 per cent.

Exports of engineering goods from the twelve countries listed in Table 11 to markets beyond western Europe and North America declined from 55 to 48 per cent of total engineering exports; of the increase in exports, only one-third went to these markets. Apart from Italy and Switzerland, the exports of all the countries shown conformed to this trend. The heavy concentration of British and French exports on such markets may have contributed to the rather slower growth of their total exports of engineering goods in relation to those of western Germany. But this can scarcely have been the principal factor, for in these markets western Germany increased its share of total exports from the twelve countries from 16 to 25 per cent, while the French share fell from 15 to 13 per cent, and the British from 45 to 39 per cent. Two exporters, Belgium-Luxembourg and Norway, recorded no increase in their exports to these markets.

The markets beyond western Europe and North America consist predominantly of countries in the course of industrialization, whose imports are concentrated on industrial machinery and equipment, with consumers' durables in second place. Accordingly, the expansion of western European exports to these markets between 1952 and 1958 was largely in capital goods. However, in the exports of France, Italy and Sweden motor-cars preponderated. This rather one-sided structure may involve a certain degree of weakness in their export position — particularly since French exports of motor-cars to what have hitherto been sheltered markets will now encounter heightened west German competition as a result of the Common Market Treaty. Italian motor-car exports have done very well in Latin American markets.

Shipping and Shipbuilding

The shipbuilding industry was, apart from coal mining, the only major western European industry in which output declined during 1959. In 1958, however, there had been a record number of launchings in most western European countries; in 1959 there were fewer launchings than in 1958 in western Germany, the United Kingdom and France, but in most other countries the number rose and output was generally high.

World tonnage on order fell during 1959 from 52 million to 42 million tons dead weight. During the first half of the year there was a reduction in tanker tonnage on order or under construction to 22 million tons dead weight [29] or almost equivalent to the tonnage of completions. However, during the latter part of the year the position improved.

Unlike the situation in many other sectors, shipping capacity was, at the beginning of the post-war period, large in relation to the demand for transport. The stage seemed to be set for the orderly development of post-war ocean transport: with the American reserve fleet acting as a buffer, tonnage would grow steadily, and pre-war and war-built tonnage would be gradually replaced. However, the onset of the Korean war caused a sudden upsurge of demand for shipping and an abrupt rise in freight rates. For dry-cargo transport the strain was relieved by the release of some 500 vessels from the United States' reserve fleet; for tanker traffic, the Korean boom came at a time when the volume of transport was already mounting incessantly and as a result the stock of tanker orders soared from 3.5 million gross tons at the end of 1950 to 8.5 million gross tons at the end of 1952. During the succeeding years, as freight rates fell, the stock of orders declined. Launchings of tankers had reached a peak in 1953 and 1954, when freight rates were at their lowest ebb; the number of launchings diminished in 1955 and 1956, when freight rates again moved upwards to new heights in 1956/57. The renewed freight boom was accompanied by a massive increase in orders for tankers, which led to a renewed expansion in launchings during 1957 and 1958. The experience of the previous cycle was repeated: the tankers ordered during the freight boom were delivered when the market had already collapsed. If the originally agreed delivery dates had been adhered to, there would have been in 1959 a further increase in tanker building over 1958. But in consequence of cancellations, especially of postponements (and the numerous conversions of orders for tankers to orders for tramps), launchings in 1959 fell slightly, and in 1960 a further decline may occur.

The Korean boom had less effect on the construction of dry-cargo vessels than on tanker building, and launchings had already reached a peak in 1952. The

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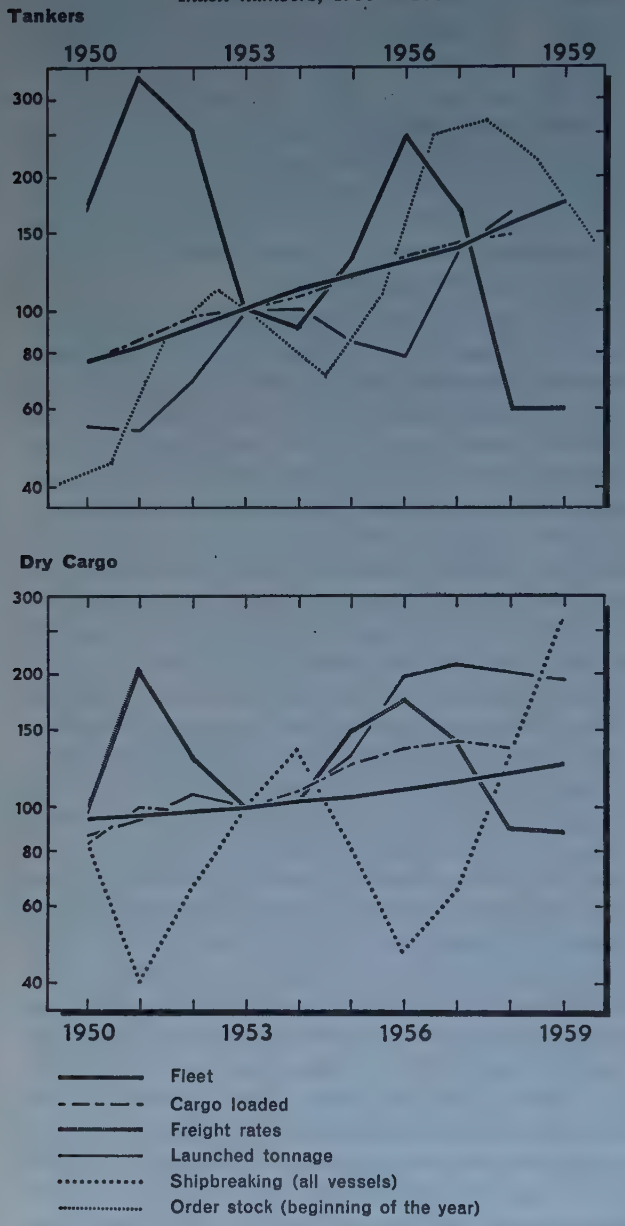
[29] This corresponds to 38 per cent of the existing tanker fleet on a dead-weight basis, but to 47 per cent in terms of carrying capacity.

CHART 5

Indicators of world shipping and shipbuilding activity, 1950-1959

Index numbers, 1953 = 100



Sources : UN, *Statistical Yearbooks* and *Monthly Bulletins ;* Lloyd's *Register of Shipping, Statistical Tables,* and *Quarterly Returns ; Bulletin of the American Bureau of Shipping ;* Westinform Shipping Report; No. 129.

set-back was moderate, and launchings already began to rise again in 1954, with the greatest increase in 1956. During subsequent years, the number of launchings remained on a high level. This stability was due in a very large measure to the construction of specialized bulk carriers.

Chart 5 shows a falling long-term trend for freight rates — a trend which is more pronounced for tankers than for dry-cargo vessels. This difference seems to arise from two factors: in part from the much higher rate of additions to tanker tonnage than to the dry-cargo fleet, in part from the increased size of tankers, which reduces their operating costs in relation to those of dry-cargo ships, the size of which cannot increase comparably, given the nature of the cargo and port handling facilities.

Towards the end of 1959, the world merchant fleet [30] amounted to about 115 million gross tons, as compared with 75 million tons at the end of 1950. The total for 1959 includes the inactive American reserve fleet of approximately 2,000 ships with a gross tonnage of about 14 million. In addition to the reserve fleet, a gross tonnage of about 10 million, fairly equally divided between tankers and dry-cargo vessels, was laid up at the end of 1959, so that the active tonnage at that date was about 90 million compared with 60 million in 1950; and the increase in the carrying capacity of the active fleet was even greater. The dry-cargo fleet has a larger proportion of pre-war and war-built vessels than the tanker fleet.[31]

Shipbuilding quotations have, not unexpectedly, tended to decline during the past two years; [32] moreover, shipyards — particularly in Japan and western Germany have further relaxed their terms of payment. Shipowners, confident in the future of the industry, and financially strong enough to do so, have been able to take advantage of the lower building costs. Since competition for freights in the future is likely to be keener, it is clearly an advantage to have modern vessels. This explains why many tanker operators have, during the past year, converted orders for small and medium-sized tankers into orders for super-tankers; indeed, many reported cancellations of orders have turned out to consist of such conversions.

On account of the strong fluctuations in transport demand and the long time-lag between order and delivery, changes in the activity of the shipbuilding industry have not been synchronized with fluctuations in general economic activity. The world's shipbuilding capacity has almost tripled since 1950, partly owing to the rapid growth in Japan and western Germany, partly to the extension of the shipbuilding facilities in a number of other countries. The United Kingdom is the notable exception: British launchings have been almost stable at 1.4 million gross tons so that first place has been ceded to Japan.

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[30] Excluding eastern Europe, the Soviet Union and mainland China.

[31] The Liberty ships may be taken as an example of obsolete tramps. In January 1957, these ships had a trading value of £73 per ton dead weight, and a shipbreaking value of £21; in the middle of 1959, these values had fallen to £8-10 and £7-8 respectively. As a result, the rate of shipbreaking increased in 1959 to about 3 million gross tons, compared with 1.4 million gross tons in 1958 and 0.7 million gross tons in 1957.

The United States Government has recently decided to scrap about 1,000 Liberty ships which have been laid up since the war. This is expected further to depress scrap values. Many commercial owners of these ships have, however, decided to install new machinery in order to increase their speed, and towards the end of 1959 prices of Liberty ships were slightly firmer.

[32] For example, to build a 47,000-ton tanker at the end of 1957 cost $170 per dead-weight ton in Japan and $180 in Europe; by March 1959, the price was about the same — $145 — in both areas. A shelter-deck of between 10,500 and 12,500 dead-weight tons which in 1954/55 cost £700,000-750,000 and in 1956 £1,050,000, had by the end of 1957 fallen to £950,000-1,000,000, and in March 1959 to £850,000.

The shipyards are now capable of replacing the entire existing world tonnage in rather less than ten years. In most shipbuilding nations, yards have been modernized, slipways extended, prefabrication sheds erected, etc. Nowadays the modern, though not yet the typical, shipyard has a straight flow from plate-yard to launching site. The prefabrication of parts of the hull, assembled on the slipway by means of cranes, was adopted on a large scale in the United States during the war, but was first exploited commercially by Japanese yards for standardized ships — tankers in particular. It is perhaps significant that Japan and western Germany adopted modern building techniques earlier than most other countries; the need for reconstructing most of the war-damaged installations afforded them an opportunity that was less accessible to the British shipyards, because *inter alia* the latter have had to modernize while at the same time maintaining full output.

The capacity of the shipbuilding industry should increase further, *pari passu* with its modernization; so in a way the present doldrums of shipping and shipbuilding should be viewed as the partial outcome of the adjustment of shipping and shipbuilding capacity to long-term requirements. The reduction in building costs yielded by both the introduction of bigger and more standard vessels and the rationalization of building methods will stiffen competition among shipyards; and it is probable that several old-fashioned yards will be closed down.

Shipping and shipbuilding are, quite understandably, two industries for which international conditions are of decisive importance, and which are directly exposed to the full force of international competition. This, in a sense, vulnerable position induced some countries — the outstanding example is, of course, the United States — to introduce subsidies for the domestic shipbuilding industry; and about 40 countries now give preference, in one form or another, to vessels sailing under their own flag. The United States is also remarkable for its 50 per cent rule governing the shipping of government-financed exports, and the subsidies granted to about 20 lines considered vital for the country's trade.

The present dearth of orders in conjunction with low freight rates have provoked fresh demands for the protection of either shipbuilding or shipping, or both, in many countries. Moreover, many of the new and newly-developed countries are anxious to build up a merchant fleet. Additional discrimination on the world shipping market therefore seems not unlikely in the years ahead.

The Coal Industry

Although the economic expansion in 1959 encompassed a rapid increase in the output of the steel, cement and other industries which are heavy consumers of energy, it brought no improvement to the coal industry in western Europe. Nor did the situation change much even when industrial expansion was particularly marked in the second half of the year. Following a 2 per cent decline in 1958 from the preceding year (which was the post-war peak) western European output of hard coal fell by a further 5 per cent in 1959. The principal reductions took place in Belgium, the United Kingdom and western Germany, with relatively the largest cut — of 16 per cent — in Belgian output; elsewhere in western Europe, coal production was held at or around the 1958 level.

The contraction in western European coal production was accompanied during 1959 by an increase of about 50 per cent in pit-head stocks, which amounted to 69 million tons, or the equivalent of nearly two months' output, by the end of the year. Normal requirements of such stocks do not exceed between one and two weeks' production, yet by the end of 1959 existing stocks corresponded to the output of more than four months in Belgium, two months in the United Kingdom and France, and one month in the Netherlands and western Germany (including the Saar). There was a moderate decline in these stocks at the turn of the year and consumer stocks in the ECSC countries started to fall during the summer and a slow decline continued during the second half of the year.

The slight recovery of coal production, observed in the fourth quarter, in most countries was largely due to seasonal factors. In addition to the fall in coal output and the accumulation of stocks in 1959, there was a sharp cut in western Europe's net imports of coal (imports from the United States fell by nearly one-half), which meant a decline in coal consumption of some 8 per cent — certainly a unique development in a year of rapid industrial expansion. True, a fall in consumption of the same order occurred in 1958, but that was a year when sluggish industrial activity involved a slight decline in total energy consumption in western Europe.

Western European consumption of oil went up by 15 per cent in 1958 and the rise in 1959 may have been nearly as big. This tendency for the share of oil in western Europe's energy consumption to grow is in

TABLE 12

Coal consumption as a percentage of the consumption of coal and petroleum combined

In terms of hard coal equivalent

	1929	1937	1948	1950	1953	1957	1958
Austria	95	88	88	84	73	65	59
Belgium	99	97	93	90	86	79	74
Denmark	90	87	71	76	68	46	44
France	96	91	89	83	79	75	70
Western Germany[a]	98	96	97	96	93	86	82
Italy	92	80	72	63	52	41	33
Netherlands	92	89	83	83	80	66	60
Norway	90	86	56	46	37	27	22
Sweden	90	85	67	57	43	28	22
Switzerland	90	83	67	61	51	44	33
Turkey	89	90	84	80	73	67	63
United Kingdom	96	94	92	91	90	86	83

Sources: OEEC, *Industrial Statistics 1900-1957*, 1958; *Basic Statistics of Energy for OEEC Countries, 1950-1958*, 1959.

[a] Excluding Saar.

complete conformity with past experience.[33] In 1929 oil accounted for no more than 4 per cent of total energy consumption, in 1938 for 8 per cent, and in 1950 for 13 per cent. By 1958 the proportion had risen to 25 per cent and in 1959 it was higher still. The rate at which oil has replaced coal during the past three decades is shown for individual western European countries in Table 12. The data are based on the consumption of total petroleum products, including white oils which do not compete with coal. As the consumption of these oils in nearly every country has risen less rapidly in post-war years than total petroleum consumption, their exclusion would show an even more pronounced fall in the share of coal than that shown in the table. It can be seen that the substitution of coal for oil has been much faster during the post-war years in countries where coal consumption depends largely on imported supplies than in coal-producing countries. In Italy, Switzerland, Norway and Sweden the share of coal in total consumption of coal and petroleum combined is today less than one-half of what it was in 1950; in producing countries the corresponding decline does not exceed 20 to 25 per cent, except in the Netherlands. The shift to oil was also more marked in importing than in producing countries during the early post-war period, when the former may have suffered more than the latter from the general scarcity of coal. In some producing countries — for example France and western Germany — special measures have been taken to protect coal from the competition of oil. In western Germany, for instance, a coal/fuel-oil cartel was established on the initiative of the Government to bring fuel-oil prices into line with world prices, and existed until the summer of 1959. After its termination, the Government proposed a tax on all fuel and heating oils which is expected to take effect, in modified form, from June 1960, and to be enforced until the end of 1962. In the United Kingdom coal has maintained its position in energy consumption until recently, largely on account of its relative cheapness.[33a]

Elsewhere in western Europe the prices set for fuel oils have usually enabled them to compete favourably with coal, in terms of calorific value, for most uses. It is not possible to illustrate statistically the relationship between prices actually charged during the fifties, since published series for fuel-oil prices do not make allowance for the substantial rebates granted to consumers in some countries; nor are representative series for coal prices always available. The published data indicate, however, that in both coal-producing and coal-importing countries the relationship between the price of coal and oil tended to be less favourable to coal consumption during the first half of the fifties than immediately preceding the post-Korean price boom. For well-known and extraordinary reasons, coal and oil prices rose sharply in 1956-1957. The reduction in fuel-oil prices which has since taken place — largely as a result of the sharp fall in tanker freight rates — has been accompanied by a proportionate, or more than proportionate, reduction of coal prices in many consuming countries, including Sweden and Italy. But in producing countries internal coal prices have continued to increase despite sometimes substantial reductions in fuel-oil prices.

The future position of coal versus oil in western Europe's energy consumption will depend to a large extent on its price competitiveness. Given the geological properties of western European coal mines, production is subject to decreasing returns; how far costs can be held constant, or reduced, will depend on the possibility of closing low-yielding mines, as has been done in the United States. In that country, coal has been in keen competition with petroleum and natural gas, and its share in total energy production fell from 59 per cent in 1929 to 41 per cent in 1950 and to 29 per cent in 1956. The price of coal has been kept low in spite of considerable increases in miners' wages; but output per man-shift increased by more than one-half during the fifties and is now six times as high as in the ECSC area.

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[33] It is also expected to continue in the future, although there are divergent estimates of its probable rate. The Energy Advisory Commission of the OEEC estimates in its recent report (*Towards a New Energy Pattern in Europe*, Paris, January 1960) potential supplies from indigenous production and imports in the OEEC area as follows (in million tons of coal equivalent):

	1955	*1965*	*1975*
From indigenous production:			
Coal	477	440-480	430-495
Oil	7	25	50-60
From imports:			
Coal	28	10-60	10-60
Oil	146	260-310	380-500
Estimates for total demand for energy	777	970-1050	1225-1425

[33a] A big drop in the share of coal occurred in 1959.

In western Europe, post-war coal production was raised to the pre-war level and held at that level until the decline of 1958-1959. Output per man-shift has remained significantly lower than pre-war in western Germany and the Netherlands, slightly higher in the United Kingdom, and much higher only in France. Production costs have therefore generally risen, as has the internal price of coal in producing countries. The original plans for a sizable expansion in coal output in the next 20 years, if adhered to, could hardly have been fulfilled without further increases in costs. The policy of pushing coal output at all costs may have been necessary in the past when there was a scarcity both of coal and of tanker capacity to accommodate supply to western Europe's rapidly growing energy requirements. By 1957 and 1958, however (and although the position was obscured by the temporary scarcities which arose during the Suez crisis), supplies of energy for the western world at large, and for western Europe in particular, at last caught up with demand. The overwhelmingly important contribution to this change has been the maturing of the large investments in the petroleum industry during post-war years. The levelling-off in industrial activity in 1958 contributed to the shift in the demand-supply position of energy, as did the more efficient methods of fuel usage developed during the end-1956 fuel crisis — the effects of which were not fully felt before 1958 and 1959.

Now, for the first time in the post-war period, current production of petroleum is running ahead of consumption, and available tanker capacity is ample. Another new feature in the present situation is that the sharp drop in freight rates in early 1958 has brought the c.i.f. price of American coal down to a level where it competes with western European pit-head prices. The question of cost in western European coal mining is therefore now more than ever one of cardinal importance. The recognition of this fact has brought about important revisions in the plans and policies for the coal industry in the United Kingdom, western Germany and Belgium, with emphasis on the closure of uneconomic mines and other measures facilitating cost reduction.[34] The need to eliminate uneconomic production has also been stressed by the French authorities, which, like those of western Germany, have, however, suggested the levying of a tax on fuel oils to help finance the conversion of coal-mining activity.

Even with cuts in western European production costs and coal prices, however, coal may have difficulties in competing favourably with fuel oil, since the structure of petroleum refinery production allows great flexibility in the pricing of fuel oil. The price of fuel oil to western European consumers may also be subject to smaller short-term fluctuations and a smaller long-run increase than coal prices on account of the difference between transport facilities for coal and those for oil. Much of the tanker fleet is operated under time charter, or owned by oil companies, whereas coal transport is largely on trip charter. Fluctuations in freight rates not only influence the cost of American coal to western Europe, but also the cost of coal from Poland — the main outside supplier to western Europe — which tends to follow the landed cost of United States coal. In the long run the scope for effecting cost reductions through a shift to larger and more economic vessels would appear to be considerably greater in oil than in coal transport.

The more immediate outlook for the western European coal industry may be somewhat more favourable than the long-term prospects. The pattern of consumption of energy tends to be fairly stable in the short run, on account of both the existence of installations and equipment adapted to the use of particular fuels and a certain rigidity in consumer preferences.[34a]

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[34] For details see the *Economic Bulletin for Europe*, Vol. 11, No. 3, pp. 6-8.

[34a] In the longer run, only about one-third of total coal consumption is exempt from competition with fuel oils and other fuels.

5. PROSPECTS FOR 1960

The Prospective Growth of Demand in France, western Germany and the United Kingdom

At the beginning of 1960, almost all major indicators pointed to a continued, and in some countries and sectors accelerated, growth of demand in western Europe for the remainder of the year. This was particularly true of the three largest countries, which jointly account for about 60 per cent of total output in western Europe and a still larger proportion of industrial production.

In the United Kingdom, the expectation of further rapid expansion has been reinforced by the recent disclosure[35] that manufacturing industry currently plans to increase its total fixed capital expenditure in 1960 by about 14 per cent — comprising an increment of some 17 per cent in expenditure on plant, machinery and vehicles, and an increment of about 8 per cent in expenditure on construction.[36] An even larger increase — of about 20 per cent — is foreseen in fixed capital expenditure by other industries and services. These figures represent an exceptionally large upward revision of the preceding estimates, which were based on inquiries made some five months earlier during the summer of 1959. In France, official forecasts of developments during 1960 estimate a rise of more than 8 per cent in the volume of private fixed capital formation, which was static during 1959. In western Germany, where, in contrast with the other two countries, industrial investment demand had already been climbing vigorously in the course of 1959, the expansion may be expected to accelerate during 1960. In conformity with the relative rates of increase of output obtaining in 1959, a particularly large increase in investment is foreseen in the capital-goods industries. For industry as a whole, the expected increase in expenditure on fixed capital formation is of the same order of magnitude as in the United Kingdom. But in both countries a lag in the growth of supply may conceivably result in a smaller increase of capital formation than planned.

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[35] In January, on the basis of inquiries made towards the end of 1959. See the *Board of Trade Journal*, 22 January 1960, p. 158.

Private housebuilding in the United Kingdom is expected to continue its rise during 1960; whereas in western Germany, where building activity has been at full capacity levels during 1959, the present indications are that the volume of building will decline slightly in 1960. Nor is any further increase in housebuilding in France foreseeable during 1960.

Government expenditure is likely to contribute moderately to the growth of demand in all three countries. Public-sector investment in the United Kingdom began to rise only in the latter half of 1959, in response to the decisions taken towards the end of 1958; the increase is expected to continue in 1960. In neither the United Kingdom nor western Germany have the budgets for the fiscal year beginning 1 April as yet been adopted; in the latter country an attempt is being made to restrict extraordinary expenditure — mainly on housebuilding — by some DM 200-300 million in the coming year; but it is unlikely that fiscal policy will change to any major extent in either country. The French budget for 1960 involves little change in the *impasse*: [36a] government expenditure on goods and services is planned to increase less (in volume terms) than in 1959, but still by some 3 per cent and 9 per cent for current and capital expenditure respectively.

In the United Kingdom private consumption during 1958 and 1959 was of first importance in the recovery and its rate of growth is unlikely to change much. The volume of private consumption in France hardly changed from 1958 to 1959, but an increase of nearly 5 per cent is officially forecast for 1960. During 1959, private consumption rose less than other forms of demand in western Germany, but in 1960 will probably account for a larger part of the increase in total demand. In all three countries (and in several other western European countries too) an acceleration of wage increases as total activity expands may quite possibly generate a further rise in consumption.

With continuing expansion in western Europe and North America, and with some improvement in the export receipts and reserve positions of the primary-producing countries, demand for the exports of the three big western European countries can hardly fail to increase, although perhaps at a slacker pace than during the past year — particularly for French exports. It is, moreover, likely that the imports of each of these countries will rise more rapidly than exports: if this happens, the growth of foreign trade will not make any net addition to the income flow.

The Elasticity of Supply

As, during 1959 and the early part of 1960, output has expanded in all the industrialized countries of western Europe, full employment and full capacity levels have been more closely approached, and the elasticity of domestic output has tended to decline. In this respect, there are, however, considerable differences among countries.

Total supply may be considered as being twofold: domestic and foreign. How far an increase in a country's domestic demand can be met from an elastic increase in supply will depend, in the first place, on the available margin of idle domestic resources, principally labour, and, in the second place, on the balance-of-payments position of the country in question — in particular, its foreign exchange reserves and its access to short-term credits from abroad. In the following tabulation, which does not pretend to be exact, western European countries are classified according to the magnitude of their internal, external, and total margin for short-term expansion.[37] This summary classification is based primarily, but not exclusively, on unemployment percentages and on gross holdings of foreign exchange and gold expressed as percentages of gross national product.[38]

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[36] The steel and motor-car industries account for a large part of the foreseen rise in investment.

[36a] i.e. the budget deficit as defined in the traditional budget layout.

[37] See the *Economic Survey of Europe in 1958*, Chapter III, section 4.

[38] Among the more important complicating factors — which are not discussed here — are the dependence of the margin for expansion on the sectoral distribution of the rise in demand; and the interaction between internal and external margins. The total margin for expansion is roughly the weighted average of the internal and external margins.

Margins for short-term economic expansion in western European countries

Ordinal indicators : 1 = narrow : 2 = medium : 3 = wide

	Internal	*External*	*Total*
Austria	2	3	2
Belgium	3	2	2
Denmark	2	1	2
Finland	1	2	1
France	1	1	1
Western Germany	1	3	2
Greece	2	2	2
Ireland	2	2	2
Italy	3	3	3
Netherlands	1	3	2
Norway	1	1	1
Portugal	2	3	3
Sweden	1	1	1
Switzerland	1	3	2
Turkey	2	1	1
United Kingdom	1	1	1
Yugoslavia	2	1	2

The classification of the less industrialized southern European countries is governed by special considerations. Although these countries have, fairly typically, an ample total labour supply, [39] an increase in total demand tends to evoke a less elastic response of domestic supply than in the highly industrialized countries.[40] Two of the less industrialized countries, Ireland and Portugal, have relatively large gross foreign exchange reserves, and the reserve position of Greece also appears more comfortable than that of many of the highly industrialized countries; even so, the authorities of these countries may feel that they cannot afford to allow foreign exchange reserves to fall, as a result of domestic demand expansion, in the expectation that domestic supplies will expand appreciably before reserves have fallen to critical levels.

In two of the highly industrialized countries — western Germany and Switzerland — the domestic margin for expansion is quite narrow, but the balance-of-payments position is strong and reserves are large. In Switzerland, there is virtually no unemployment and official gross foreign-exchange and gold reserves amount to about 20 per cent of gross national product. Hence, any expansion of demand beyond what is needed to sustain long-term growth is not essential; but the stability of the Swiss economy would still not be endangered by a rapid, but temporary, further increase in demand, for this could be absorbed (as in 1956-1957) through an increase in imports without any serious weakening of the balance-of-payments position. Unemployment in western Germany has not been brought down to so minimal a level as in Switzerland; but this difference is partly offset by the greater importance of the variable immigration of foreign workers in adjusting labour supply to demand in Switzerland than in western Germany. However, the west German balance-of-payments position allows — as in the Swiss case — the absorption of domestic excess demand through a temporary fall in the foreign balance; but since it continues to show a surplus (and in so far as its removal through increased capital exports is not in prospect), [41] domestic excess demand might be deliberately created as one of several possible methods of eliminating the balance-of-payments surplus.[42] Among the highly industrialized western European countries, the Belgian position differs most from those of western Germany and Switzerland in the present context. Its balance-of-payments position, while leaving room for manoeuvre, is weaker than in the other two countries, and its degree of unemployment is higher than in any other highly industrialized western European economy. With its exports highly sensitive to international economic activity, Belgium has a patently strong interest in continued western European expansion.

The Rise in Interest Rates

Interest rates began to rise as economic expansion proceeded in western Europe during 1959. In the first part of the year the rise occurred in only a minority of countries, and even there slowly; but from September onwards the increases spread and became stronger. The fairly modest rise in rates in the early part of 1959 was partly a response to the more restrictive credit policies adopted in the United States in 1958, partly the effect of rising investment in western European countries which gave rise to both growing demand for long-term finance and intensified demand for credit from the commercial banks. The banks, in turn, were thus induced to shift from investments to advances. However, both the growth of the foreign exchange reserves of most countries (by increasing bank liquidity) and the stability of prices were instrumental in keeping the rise in interest rates within narrow limits.

The accelerated and more widespread rise in interest rates, which began in the autumn of 1959, has been the result of deliberate policy action. In September, the central banks of Denmark and western Germany raised their discount rates, and further increases have subsequently taken place, supplemented by other measures to restrict credit and check the increase in investment expenditure; for building activity had reached a high level in both countries, and there were signs of a quickening upward drift in wages and prices. It seems likely, however, that in both Denmark and western Germany — as in Sweden, where the bank rate was raised in January 1960 — recourse was had to credit restriction as a second-best means of containing total demand in default of a change to less expansionary fiscal policies.[43]

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[39] This is true even of Yugoslavia, despite the insignificant extent of visible unemployment, because of the large-scale migration of labour from agriculture to industry.

[40] The principal and well-known reasons for this are : a large part of an increase in consumers' demand is directed towards foods, and the short-term elasticity of agricultural output is low; capital equipment rather than labour tends to be the scarce factor limiting expansion ; and, finally, labour of the kind and with the qualifications required for the expansion of production is not readily available.

[41] This will, of course, largely depend upon the credit policies pursued in western Germany.

[42] For further discussion of the west German balance-of-payments problem, see the *Economic Survey of Europe in 1958*, Chapter III, section 3, and the *Economic Bulletin for Europe*, Vol. 11, No. 3, p. 19.

In contrast with the countries mentioned, the increase in the Belgian bank rate was not provoked by the pressure of domestic demand, but was undertaken to check the outflow of short-term capital. This factor also underlay the bank-rate increases in the United Kingdom and the Netherlands. Although internal margins for expansion are in both these countries much narrower than in Belgium, the prevailing view both within and outside government circles seems to be that there is sufficient slack to allow expansion to continue at a fairly rapid pace during 1960.[44] A further factor exercising the authorities in both countries — and particularly in the Netherlands — is concern lest the demand pressures experienced in 1955-1957 should be repeated, with mutually reinforcing rises in wages and prices; in this connexion the bank-rate increases serve both as warnings and as precautions — and it is perhaps significant that the rise in the British bank rate came hard on the heels of industry's negative response to government suggestions that lower unit costs should make possible lower prices.

Credit Policy, Prices and Wages

As expansion proceeds during 1960, the tendency for interest rates automatically to rise will become stronger, and — disturbed by the danger of re-emerging inflationary pressures — the monetary authorities in more and more countries may be led to adopt more restrictive credit policies. This development is all the more likely in that contractionary fiscal policies have recently been introduced, or are in prospect, in only a few countries; in some countries they may even be relaxed.

It may be argued, however, that in the present situation credit restriction may prove a singularly ineffective and unsuitable means of restraining total demand or of limiting wage increases; that wage stability as a target of economic policy cannot at present be justified by the traditional type of inflation analysis; and that, consequently, the case for a policy of restriction of general demand is weakened.

As was stated in section 1 above, the slowing-down of western European expansion after the middle of the fifties coincided with the maturing of earlier large-scale investments, both in manufacturing and primary-goods production. During the last two years, rates of gross profit per unit of output in western European industries have tended to rise owing to the conjoint effects of several factors: the stickiness of final prices, the slower rate of increase in money wages as the bargaining position of labour weakened, rising productivity attributable to the enlargement of the capital stock and to technical progress, and the fall in prices of imported raw materials. When activity was slowing down in 1957-1958, the rise in gross-profit rates was temporarily hidden by the snails' pace movement of output and turnover in industry, and by the hoarding of labour. But when expansion was resumed, higher unit rates of gross profit combined with increasing output to yield a strong rise in total profits. Among the three largest countries, this was a particularly prominent feature in western Germany and the United Kingdom; [45] the development was less clear-cut in France, where monetary stabilization eliminated windfall gains from inflation. There, too, however, rates of profit and total profits rose during 1959, and, with the expansion of activity, the rise may be expected to continue in 1960. In this connexion, it is significant that in private industry wage increases, typically of 3 to 7 per cent, were granted — apparently with comparatively little resistance from firms — in the closing months of 1959.

The western European slow-down was too short-lived to depress the prices of manufactures, and it is most unlikely that they will fall during 1960 with demand high and rising. As activity mounts, competition among entrepreneurs for scarce resources will intensify, which will mean, first and foremost, competition for labour; thus wages will tend to rise, for entrepreneurs will be willing and able to pay more. Indeed, recent developments of wages, prices and productivity have created disequilibrium in western European labour markets. If the authorities are unwilling to countenance a substantial rise in money wages, they can restore equilibrium only by pursuing policies which force down prices. To restrict total demand is both exceedingly wasteful and inefficient, because it exerts pressure on wages and prices alike and disequilibrium is removed only in so far as the prices of manufactures respond more than wages. Moreover the use of this method would tend further to strengthen the balance of payments of western European countries with the United States. In that case the authorities in the United States might turn to more contractionary or restrictive policies, which would have undesirable consequences for international trade — especially for the primary-producing countries. Indeed, given that the dollar problem is now inverted, a stronger rise in wages in western Europe than in the United States would clearly be preferable to narrowing profit margins in western Europe by means of lowering prices. But every western European country is anxious not to endanger its competitive position — in relation to other countries of the region rather than vis-à-vis the United States — by an increase in money wages.[46]

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[43] In Sweden, banking credit to the public sector has rapidly expanded since mid-1958, and, in spite of the introduction of a purchase tax, the central government will make heavy demands on the capital market in the coming year. In Denmark, although activity is high and the period of rising reserves seems to have come to an end, tax reductions may be in prospect for 1960/61. On the position in western Germany, see Chapter VI, section 2, below.

[44] The latest survey (February 1960) of the state of business and of prospects and expectations by the Federation of British Industries confirms the narrowing of margins for expansion, but not to such an extent as to preclude further rapid growth of output.

[45] See, for instance, Deutsche Bundesbank, *Memorandum über die Lohn- und Preisentwicklung*, January 1960; and National Institute of Economic and Social Research, *Economic Review*, London, January 1960, Chapter 2.

Apart from the restriction of total demand, the only solution to the price problem is to increase competition through a greater flow of imports; and since the problem is common to most of the highly industrialized countries of western Europe, the increase in imports must come mainly from beyond western Europe — that means principally from the United States, although a liberalization of western European import policies would also benefit the exports of the less industrialized overseas countries.[47]

The International Repercussions of Credit Restriction

It was observed above that in both Denmark and western Germany, and quite probably in Sweden too, the central bank considered a change in fiscal policies more appropriate than the restriction of credit, which was resorted to only because fiscal policies were expected to prove insufficiently contractionary. Without considering the appropriateness — or rather inappropriateness — of credit contraction as an instrument of price and wage policies, it can be argued that the use of fiscal in preference to credit policy involves smaller risks of undesirable side-effects where a tendency towards an excess of total demand over supply motivates contractionary monetary policies.

In an economy in which liberal economic policies are pursued, only long-term investments, and housebuilding in particular, respond directly to changes in interest rates. On the other hand, the main sources of spontaneous changes in private-sector activity are in foreign trade and industrial investment. But it is notoriously difficult mutually to substitute demand for resources for housebuilding and that for foreign trade and industrial development. In general, therefore, adjustments in interest rates are a rather ineffective means of counteracting autonomous changes in private-sector activity. Present conditions in most countries have further reduced the effectiveness of interest-rate policy, in that subsidies and other special arrangements have in some measure insulated housebuilding from the influence of central bank policy.[48] With a truncated field of action, credit policy has had to become cruder and more violent in order to achieve significant effects. Evidence of this is manifest in the increasing use of quantitative restrictions[49] — for example, the variation of minimum reserve requirements and hire-purchase regulations — and also in the violent fluctuations of security prices and yields.[50]

More important in contemporary circumstances, is the widening difference between the international effects of fiscal and credit policies which has been created by the progressive liberalization of international payments. A change in fiscal policies in any one country causes foreign repercussions which spring almost entirely from the effects of these policies on domestic activity; the repercussions are consequently moderate, for the most part, and slow to appear. A change in credit policies, in contrast, while it may take long to produce any appreciable effect on domestic activity, will nowadays have for the most part almost immediate effects on monetary conditions (and thereby possibly on the policies pursued) in other countries.

The present wave of bank-rate increases originated in the United States in 1958, and the policies of the Federal Reserve Board have in part been directly motivated by the balance-of-payments position of the United States. But rising interest rates in western Europe would tend to nullify the intended effects of

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[46] Of course, since trade unions are able effectively to resist a fall in wages, and if the monetary authorities did their best to prevent wages from rising, while at the same time maintaining fixed exchange rates, the outlook for establishing and preserving international equilibrium would not be very bright.

[47] The two main types of relevant policies were mentioned at the end of section 2 above.

[48] These diverse special arrangements have not resulted in an increased stability of building activity, which has generated a sizable part of the short-term changes in total demand. The special support given to housebuilding may not even have increased building activity very much, since a great part of the subsidies has been absorbed by higher costs, and — without the subsidies — general levels of interest rates would have been much lower, since most other investments are fairly unresponsive to changes in interest rates.

[49] Which is thus in marked contrast with the recent trend in international payments and trade policies. Commercial banks limit credit to their customers more by credit rationing than by higher charges.

[50] The experience of anyone who bought British 2½ per cent Consols at the end of one year and sold them at the end of the next may serve as a case in point. He obtained the following yields:

	Percentages
December 1953 to December 1954	+7.16
December 1954 to December 1955	−10.54
December 1955 to December 1956	−5.98
December 1956 to December 1957	−4.51
December 1957 to December 1958	+16.03
December 1958 to December 1959	+3.60

Before the first world war, yields of long-term bonds varied less than in recent decades and were less sensitive to changes in short-term rates.

United States' credit policies, and thus increase the difficulties encountered by the monetary authorities of that country. The adoption by some western European countries of restrictive credit policies would, of course, also have contractionary effects on other countries of the region, and particularly on those which have a relatively weak balance-of-payments position — whether or not their internal margin for expansion is large.

The measures so far taken towards credit contraction in western Europe are relatively mild, and in most countries will have little effect on activity during the major part of 1960. It is highly probable, then, that economic expansion will continue during the year and that — for the reasons given above — it will be accompanied by a higher rate of increase of wages. In that case monetary authorities would probably be induced to respond by further tightening monetary policies. By 1961 the conjoint and simultaneous effect of such policies and rising wages could be the narrowing of profit margins and a slackening rate of growth of demand.

CHAPTER II

ECONOMIC GROWTH IN EASTERN EUROPE AND THE SOVIET UNION

1. THE DEVELOPMENT OF INDUSTRY AND AGRICULTURE

The year 1959, in fact if not always in form, was the first year of a new phase of economic development in most of the countries of eastern Europe and in the Soviet Union. All these countries began in 1958 to prepare new long-term plans for periods of five or seven years ending in 1965, within the framework of "perspective" plans for the fifteen years to 1975. In the Soviet Union and eastern Germany the existing 1956-1960 plans were formally superseded during 1958 or 1959 by the announcement of new seven-year plans for 1959-1965, and new plans for the five years 1961-1965 have been published during the last twelve months in Czechoslovakia, Hungary and Poland. In the last three countries, no less than in the first two, it is clear that policies were already being adapted during 1959 to the objectives of the new long-term plans. In Albania, Bulgaria and Rumania, however, work on the formulation of long-term plans is still in progress, and few details have yet been published.

The five plans on which reasonably comprehensive information is available are discussed in Chapter III. It is clear that, except in the agricultural sphere, the growth of both production and investment in 1959 has been well above the average rates of the long-term plans; indeed, this has proved a rather successful year — except for farm output — throughout the area. Industrial production was well above the levels originally planned in Hungary and the Soviet Union; and was better by narrow margins in all other eastern European countries except Bulgaria, where the plan — for a 28 per cent rise — was ambitious and an increase of some 20-25 per cent seems to have been realized. The value of external trade rose steeply everywhere except in Rumania — by percentages ranging from 7 in that country to 12-20 per cent in all other countries of the area except Bulgaria, where a 42 per cent expansion was reported. Net domestic product increased about as fast as in the previous year except in Albania, Bulgaria and Rumania, which showed considerable accelerations, and Czechoslovakia where the expansion slowed down. The rate of growth of fixed investment exceeded that registered in 1958 in all countries except Albania and eastern Germany, where increases of 14 per cent in outlays nevertheless occurred; but considerable resources still remained available to improve consumption standards.

(a) Industrial output

A rise of 20 per cent in gross industrial output was reported for the third consecutive year in Albania; and in eastern Germany, Hungary, Rumania and the Soviet Union the rise of gross output accelerated slightly in 1959, increases of 11 or 12 per cent over the 1958 level being registered in all these countries as well as Czechoslovakia. The rise of 9 per cent in output of Polish industry represented a slight slackening as compared with the recent past; but this is attributable to a relatively small increase in food-processing — everywhere, except perhaps in the Soviet Union, one of the more slowly growing branches of production and, moreover, affected by fluctuations in harvests and consequential variations in farm deliveries of animal produce. The growth of industrial output excluding food-processing exceeded the rise in the overall index between 1958 and 1959 in all the countries for which data are available; and the figures confirm the impression of a generally maintained or accelerated rate of industrial expansion (see Table 1).[1]

In Bulgaria a rise of 25 per cent in gross output of planned industry has been announced, and output as reported in the statistical bulletins suggests a similar rise. However, the index of industrial production in 1959 published in the latter source covers only state industry, whereas the index for earlier years covered all planned industry; and changes in industrial organization have affected the coverage of these two categories and, therefore, the data for 1958 and 1959 on which the published index number is based. It seems likely that the effect has been to overstate the growth of industrial production from 1958 to 1959,

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[1] In interpreting the Hungarian data it has to be remembered that the index numbers for 1957 and 1958 were still affected by the disruption of output in the last quarter of 1956 and the early months of 1957.

TABLE 1

Gross industrial output, 1957 to 1960 Plan

Percentage increases from the previous year

Country	All industry				Total excluding food processing			
	1957	1958	1959	1960 Plan	1957	1958	1959	1960 Plan
Albania	26	20	20	11	..	..	..	..
Bulgaria	16	13	..	15	21	15	..	15
Czechoslovakia	10	11	11	10	11	12	12	11
Eastern Germany	8	11	12	..	8	12	13	..
Hungary	11	12	12	8	14	15	13	9
Poland	10	10	9	8	10	10	11	..
Rumania	9	10	11	14	11	10	14	..
Soviet Union	10	10	11	8	10	..	11	..

Sources : National statistical yearbooks and bulletins, plan fulfilment reports and official plan documents (for detailed sources see Appendix B, p. 2).

NOTE. — All industry for Czechoslovakia and the Soviet Union (but excluding that of collective farms in the latter); state and co-operative industry for Albania, eastern Germany, Poland and Rumania; state industry for Hungary. On the Bulgarian data, see the text, p. 1 and below.

though to what extent it is as yet impossible to say.[2] Table 2 assembles the available data on the growth of total output of individual products, together with the weights of the relevant industrial branches in gross output of all industry and the 1959 branch index numbers (for planned industry) as stated in the annual plan fulfilment report. If the 1959 statistics of output in physical quantities are comparable with those for the past, it seems probable that the rise in total gross industrial output between 1958 and 1959 has in fact been of the order of 20-25 per cent. However, some of the elements in the table are difficult to reconcile — for example, the increases, ranging from 33 per cent to over 150 per cent, in output (in quantitative terms) of five major products of the metal-using industries, and the stated 50 per cent rise in gross output of the whole branch, in a year in which domestic output of rolled steel rose by only 20 per cent and net imports, of greater magnitude, fell by 11 per cent (see Table 6 below).

The 1959 expansion seems to have been supported in most countries by a high level of completion of investment projects, normal in what was originally seen as the penultimate year of a five-year plan period. The special efforts made in recent years to widen ‘ bottlenecks ’ in fuel and material supplies have also borne fruit, in the form of generally more balanced

TABLE 2

Indicators of industrial output in Bulgaria in 1959

Quantities (in thousands of tons except where otherwise indicated) and percentages

	Percentage of gross output in 1958	Output in 1959 (Quantity)	Percentage increase over previous year	
			1958	1959
All industry	100		13	25 [a]
Electricity (*Million kWh*)	2.4	3 869	15	28 [a]
Fuels	3.1	..	5	17 [a]
of which :				
Coal	2.9 *	15 341	7	21
Ferrous metallurgy	1.1		24	26 [a]
of which :				
Iron ore	..	376	2	29
Pig iron	..	117	70	46
Crude steel	..	230	32	9
Rolled steel	..	167	19	20
Non-ferrous metallurgy	4.6		19	33 [a]
of which :				
Lead concentrate (70 per cent)	..	115	12	14
Copper concentrate (20 per cent)	..	55	−1	37
Zinc concentrate (52 per cent)	..	107	11	11
Lead		33	37	26
Zinc		9	10	10
Pyrites concentrate (42 per cent)		114	−7	36
Metal-using	13.8		23	49 [a]
of which :				
Internal combustion engines (*unit*)	..	9 201	79	164
Electric motors (*thousand*)	..	176	19	33
Transformers (*unit*)	..	5 429	26	90
Tractor ploughs (*unit*)	..	4 788	−37	77
Freight wagons (*unit*)	..	2 004	12	55
Chemicals	2.8		23	35 [a]
of which :				
Nitrogenous fertilizer	..	185	8	39
Phosphorous fertilizer	..	153	335	129
Calcined soda	..	120	10	15
Sulphuric acid	..	91	58	42
Construction materials	3.6		19	33 [a]
of which :				
Cement	..	1 433	6	53
Bricks (*million*)	..	758	18	33
Tiles (*million*)	..	232	21	16
Timber and timber processing (*thousand cu.m.*)	6.7		5	21 [a]
of which :				
Timber	..	3 359	5	14
Plywood	..	58	14	21
Textiles (Million m.)	12.8	—	8	24 [a]
of which :				
Cotton fabrics	..	209	10	23
Woollen fabrics	..	19	7	31
Silk fabrics	..	10	8	39
Leather and footwear	2.9		20	23 [a]
of which :				
Footwear (*Thousand pairs*)	..	7 806	20	22
Food processing	31.7		10	15 [a]
of which :				
Tinned vegetables	..	106	−5	34
Tinned fruit	..	144	51	58
Cheese	..	35	20	29
Edible oil	..	95	22	29
Starches	..	11	20	14
Tobacco	..	15	−6	27

Sources : Statistical yearbook 1959; and *Rabotnichesko delo*, 26 January 1960.

[a] ‘ Planned industry ’ only.

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[2] The effect of basing the index on a comparison of output within the 1959 boundaries of the state sector with output within the 1958 boundaries of that sector must be to inflate the apparent rate of growth as a result of the progressive absorption of co-operative, handicraft, etc. enterprises into the state sector. Moreover, even an index based on the coverage of ‘planned industry ’ in each of these years would also be subject to some inflation as a result of changes in coverage.

structures of domestic output and a more adequate level of imports into all the eastern European countries than was usual before 1957. This does not mean that reports of specific scarcities have ceased. Shortage of steel tubes — related to the greatly expanded programmes of pipeline construction — has been recognized in the Soviet Union as a "problem" for which special efforts to find a solution are required and has been frequently mentioned in other countries also: and scarcities of some types of sheets and plates have been reported in Czechoslovakia and Hungary. Strain on electricity supplies was reported in eastern Germany and to some extent in Poland. Scarcity of building materials in a number of countries has been attributable more to the fact that construction, helped by good weather in the early months, has been above planned levels than to any failure of output of materials and components to rise as planned (except in eastern Germany).[3]

Thus, the general impression remains of a continuation of the relatively smooth expansion of production which first became apparent in 1957 or 1958, after the upsurge of imports into eastern Europe in the former year. The support to production given by imports of fuels and raw materials into eastern Europe seems to have increased in 1959, after a relative stabilization in 1958, in all the countries for which data are available.[4]

Value of imports of fuels and raw materials

Percentage change from previous year

	1957	*1958*	*1959*
Bulgaria	41.5 [a]	4.6 [a]	> 30
Czechoslovakia	14.8	−0.8	8.5 [b]
Eastern Germany	21 [c]	4 [c]	18 [c]
Hungary	40	−3.6	5
Poland	26	−0.5	4
Soviet Union	13	−1	..

Sources : As for Tables 12 and 13 below.

[a] Volume.

[b] First nine months.

[c] Total imports.

How far stock changes also contributed to the smooth flow of materials and fuels to the processing sectors is unclear in most countries; but in Hungary stocks of coal and of rolled steel at the end of 1959 were reported to have been drawn below the end-1958 levels.[5] In Poland, on the other hand, total stocks held by industrial enterprises rose slightly faster than output in both 1958 and 1959. A further factor contributing to the maintenance of a high rate of industrial expansion has, undoubtedly, been the reforms of planning and management techniques, including inter-enterprise relations, and of incentives for enterprise managements and workers, introduced into all the countries of the area in recent years.[6]

Employment and Productivity

The expansion of industrial output in 1959 was carried primarily by rising employment in Bulgaria and Hungary, but mainly by rising labour productivity in all other countries including the Soviet Union. Bulgarian industry was able to increase its labour force by more than one-sixth (as planned); and in Hungary the 7 per cent rise in industrial employment was far more than had been foreseen in either version of the plan for the year. In the other countries the increase in the industrial labour force varied between 1½ per cent in Poland and nearly 4 per cent in Rumania, but was nevertheless higher than planned in all countries except Poland.

Gross industrial output per worker employed rose by 7-8 per cent in Czechoslovakia, Poland, Rumania, and the Soviet Union — exceeding earlier expectations in the first three countries; and in eastern Germany the rise was as high as 10 per cent (see Table 3).[7] Hungary, with a more elastic industrial labour supply, shows a slower growth of labour productivity and this seems to be true of Bulgaria also. In several countries the growth of output per man hour must have been somewhat greater than the rise in overall productivity; and in the Soviet Union, in particular, gross industrial output per man hour has risen in the two years since 1957 by 20 per cent, compared with a 13.8 per cent increase of gross output per worker.[8]

It is generally accepted that average labour productivity in industry is highest in Czechoslovakia and

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[3] See the *Economic Bullètin for Europe*, Vol. 11, No. 3, pp. 31-32, for details of reports on imbalances and scarcities in the course of the year. Towards the end of the year, the Central Committee of the Communist Party of the Soviet Union issued appeals for economy in the use of electricity and of non-ferrous metals (*Pravda*, 26 November and 17 December 1959).

[4] The change in import volumes in 1958 and 1959 was probably more favourable than is indicated by the data below, since prices in 'intra-eastern' trade tend to follow world market prices with some time-lag. Relevant price changes in 'western' international trade have been as follows:

Percentage price change from previous year

	1957	*1958*	*1959 January-September*
Minerals	4.6	−5.3	−5.5
Non-food materials of agricultural origin	—	−10.9	1.9

Sources : UN, *Monthly Bulletin of Statistics*, No. 12, 1958, p. VII, and No. 1, 1960, p. VII.

[5] *Népszabadság*, 30 December 1959, and 5 January 1960.

[6] See Chapter III, sections 1, 2 and 6, and also the *Economic Survey of Europe in 1956*, Chapter I, sections 6 and 7; the SURVEY for 1957, Chapter I, section 6, and the SURVEY for 1958, Chapter I, section 2.

[7] The rate of growth has been the same (10 per cent a year) for the past four years in the industrial sector in Albania (*Bashkimi*, 24 December 1959).

[8] The figure of 20 per cent is based on the statement that the reduction of the working week from 47 hours to 42 hours benefited two-thirds of all industrial staff (13 million out of 20 million workers). This implies a reduction in hours by 7 per cent between 1957 and 1959. The numbers affected in 1958 were much fewer than in 1959.

TABLE 3

Employment and productivity in industry and construction, 1958 to 1960 Plan

Percentage increases from the previous year

A: Employment B: Gross output per man

Country and sector		1958 Actual	1959 Plan	1959 Actual	1960 Plan
Bulgaria					
Industry	A	7	18	17.9	9
	B	6	8.3	ca. 6	5.7
Construction[a] . . .	A	29.7	. .	14.2[b]	. .
	B	7.2	7.8	—[b]	4.9
Czechoslovakia					
Industry	A	3.6	2.2	2.8	2.7
	B	7.4	7.1	7.9	7.3
Construction[c] . . .	A	0.4	3.3	4.1	2.1
	B	8.4	9.0	10.5	8.7
Eastern Germany					
Socialist industry .	A	2.6	1.9	2.1	. .
	B	8.7	8.7	10	. .
Construction . . .	A	−1.7	3.2[d]	. .	. .
	B	6.9	14.4[d]	. .	. .
Hungary					
State industry . . .	A	4.2	2.1[e]	7	4.0
	B	8.3	3.2[e]	5	3.8
State construction enterprises	A	−2.1	. .	13.0	0.5-1.4
	B	9.0	. .	12.4	7-8
Poland					
Socialist industry	A	1.0	1.8	1.5	0.7
	B	8.2	5.4	7.4	6.9
Socialist construction enterprises[f]	A	−0.3	5.6	4.9	−1.8
	B	10.3	5.1	9.5	7.0
Rumania					
Socialist industry .	A	3.6	2.0	3.8	2.7
	B	5.7	6.4	7	11.0
Socialist construction enterprises[g]	A	−1.1	. .	2.9[b]	. .
	B	7	. .	1[b]	. .
Soviet Union					
Industry	A	2.6	. .	3.3	2.2
	B	6	5.4	7.4	5.8
State construction . enterprises[g]	A	9.2	7.4[h]	6.4[h]	. .
	B	8	8	9	7

Sources : Statistical yearbooks, bulletins, plans and plan fulfilment reports; *Rudé Právo*, 4 March 1960.

[a] Including installation and assembly work under the heading of " new investment ".

[b] January-September.

[c] Excluding employment and output by sub-contractors and assembly work.

[d] State construction industry only.

[e] The plan of 8 March 1959 foresaw a rise by 3.7 per cent of employment and 5 per cent of output per man.

[f] Including installation and assembly work under the heading of " gross investment " (which in Poland includes capital repairs).

[g] Including assembly work.

[h] Derived from index numbers of work by contractors and of productivity in all state enterprises.

eastern Germany, followed by the Soviet Union; and that there is a noticeable gap between the degree of skill and efficiency of use of industrial labour in these countries and in the rest of the area. Inter-country comparisons of labour productivity are notoriously difficult — in terms even of definition as well as of practical measurement. However, an attempt made in Hungary (based on comparisons of indicators of physical output and of prices and costs of production) tends to confirm the impression of a very considerable gap between productivity levels in the Soviet Union and Hungary — and probably Poland — in 1955.[9] From 1955 to 1959 gross output per worker rose by 30 per cent in both Poland and the Soviet Union, but in Hungary by only 13 per cent. These differences are linked with increases in industrial employment over the same period of 10 per cent in Poland and of 14 per cent both in the Soviet Union and in Hungary. Thus the combination of investment, increasing skills and better use of labour and capacity in Poland seems to have been just sufficient since 1955 to prevent a widening of the productivity gap between that country and the Soviet Union, though there has been less demand on investment resources to provide new working places in the former country. In Hungary, where the growth of the industrial labour force has been the same as in the Soviet Union, the productivity gap appears to have widened, suggesting that losses consequential on the events of 1956 have not yet been made good.

Employment expanded faster in construction than in extracting and processing industry in 1959 in all countries except Rumania, where the increase of construction output (in the first nine months of the year) was much lower than elsewhere, and Bulgaria. In Czechoslovakia, Poland and the Soviet Union — and even more pronouncedly in Hungary — labour productivity in construction rose faster than in industry; and in three of these countries (Czechoslovakia, Hungary and Poland) it is hoped to limit the rise in building employment in 1960 to relatively small proportions, directing the bulk of the new recruits to the combined industrial and building labour force towards industry. Czechoslovakia has a very large mechanization programme in the construction sector.

In every country for which a 1960 plan is available some reduction in rates of growth of output and productivity in industry and construction, by comparison with the performance of 1959, is forecast — Rumania being the sole exception. The contribution

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[9] Output per man in industry as a percentage of levels in the Soviet Union in 1955:

	Poland	*Hungary*
Coal mining	145	55
Electric power	93	25
Ferrous metallurgy . . .	. .	29
Cement production . . .	92	78
Cotton mills	47	56
Woollen mills	54	59
All industry	. .	ca.50

Source : Z. Román, *Közgazdasági Szemle,* No. 8-9, 1959, pp. 583-584.

TABLE 4

Planned and actual gross industrial output of producers' goods and consumers' goods, 1959 and 1960

Percentage changes from the previous year

Country	Producers' goods			Consumers' goods		
	1959 Plan	1959 Actual	1960 Plan	1959 Plan	1959 Actual	1960 Plan
Bulgaria	31	31 * [a]	18	26	20 * [a]	13
Czechoslovakia .	10 *	13	13.5 *	7 *	8	5.5 *
Eastern Germany [b]	12.5	14.0	. .	7.8	9.4	. .
Hungary	7.0 [b]	16	10	3.5 [c]	7	6
Poland	7.6	11.0	7.9	7.3	6.0	7.2
Rumania	11.6	14.6	14.6	8.4	7 *	13.0
Soviet Union . .	8.1	12.0	8.8	6.6	10.3	6.4

Sources : Plan fulfilment reports and plan documents; *Rabotnichesko delo*, 25 January and 22 December 1959.

[a] The relative proportions of these two figures are probably significant even if they can be taken as only approximate indicators of rates of growth (see pp. 1-2 above).

[b] Producers' goods = basic and metal-using industries. Consumers' goods = light industry and food industries.

[c] The distribution by main groups is roughly estimated on the basis of the original plan of 10 December 1958 and other partial information. The revised plan of 8 March 1959 foresaw total output as about 4 per cent higher, but did not specify the revised targets by industrial groups or branches.

of productivity to output expansion is expected to rise relatively to that of employment in all these countries — and certainly also in eastern Germany — in line with the expected longer-term trends,[10] and special campaigns for raising labour productivity, for improving the maintenance and use of equipment and, in general terms, for increasing managerial and labour efficiency and encouraging over-fulfilment of plan tasks are a feature of the current industrial scene in all countries of the area.

The Pattern of Industrial Expansion

In accordance with the shift foreseen in the 1959 plans — of resources towards fixed investment and of industrial production priorities towards engineering, building materials and chemicals [11] — there was everywhere a markedly faster expansion of producer-goods output in 1959 than of production in the consumer-goods branches. This seems to have been a consequence not only of the original balance of the plans but also, in most countries, of a tendency to favour the producer-goods industries in providing the material and other inputs needed to support efforts to over-fulfil production plans. Only in the Soviet Union and eastern Germany does over-fulfilment of plans seem to have been of about the same magnitude in the producer-goods and the consumer-goods branches (see Table 4).

The excess of actual over planned output of producers' goods amounted to 3-4 per cent in the Soviet Union, Poland, Czechoslovakia and Rumania; and in Hungary the original plan was surpassed by as much as 9 per cent, whereas the margin of over-fulfilment was small in eastern Germany and certainly in Bulgaria. Output of consumers' goods was 3-4 per cent above the planned rate in the Soviet Union and Hungary, and 1-1½ per cent higher in Czechoslovakia and eastern Germany. Shortfalls on consumer-goods output as originally planned in Bulgaria, Poland and Rumania seem in Bulgaria to have been due exclusively to food processing, whereas in the other two countries — and especially Rumania — output fell short of planned levels in other consumer-goods industries also. In Poland, these shortfalls were at least partly due to delays in adjusting the pattern of output to shifts in consumers' demand — away from textiles towards some durable goods and high-quality foods; and similar factors tended to limit the growth of consumer-goods output in some other countries also.

The rapid expansion of output of producers' goods — everywhere within a range of 11-16 per cent, except in Albania where the rise was around 20 per cent and Bulgaria where it was probably much greater — cannot yet reflect the balance of the new long-term investment plans discussed in Chapter III. It seems to have been due rather to recent completions of large projects started in the past — sometimes following special efforts to complete capacities which are of particular importance for the new production targets of the long-term plans — and to more efficient exploitation of capacity not fully used in earlier years. Nevertheless the pattern of growth in 1959 represents in several countries a slight shift of emphasis already in the direction of the production patterns of the new long-term plans.

The main data available on increases in output in individual industrial branches in five countries are reproduced in Chapter III, Table 15; and the available statistics for Albania, Bulgaria and Rumania are given in Tables 2 and 5 of this chapter. In general, the engineering and building-materials branches have led the expansion, together with chemicals in Hungary, Poland and Rumania, though the pattern of growth in Albania has — not surprisingly — differed considerably from that in other countries. Rumania is also an exceptional case, in that building-materials output (like construction activity) rose only slowly in that country, and output of ferrous metals rose faster than that of the engineering branches. Outside Albania, Bulgaria and Rumania, rates of growth were within the range of 15-19 per cent for engineering output and 12-22 per cent for building materials.

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[10] See Chapter III, section 2.

[11] See the *Economic Bulletin for Europe*, Vol. 11, No. 1, pp. 1-3 and 5-7.

TABLE 5

Gross industrial output in Albania and Rumania, 1957 to 1960 Plan

Percentage changes from previous year, and percentage shares

Country and industrial branch	Percentage increase from previous year				Percentage shares in 1958 output
	1957	1958	1959	1960 Plan	
Albania					
Total industry	25.9	20.0	19.7	11.0	100
Fuels	66.9	9.5	12.8	..	8
Electric power	20.5	20.0	19.0	..	4
Non-ferrous metals . . .	46.3	26.8	20.3	..	2
Engineering	27.2	28.7	19.7	..	3
Textiles	32.3	29.5	13.1	..	26
Leather and footwear . .	25.9	17.4	15.2	..	4
Food processing	19.1	14.8	22.6	..	39
Rumania					
Total industry	8.5	9.5	11	14	100
Producers' goods . . .	9.4	10.1	14½	14½	58
Consumers' goods . .	6.7	8.8	7 *	13	42
Fuels	8.3	7.7	8½ [a]	..	10
Electric power	13.4	14.6	11½ [a]	20	3
Ferrous metals	9.9	18.1	36 [a]	28	4
Engineering [b]	17.6	12.6	18½ [a]	17	13
Chemicals	18.0	15.8	20 [a]	22	5
Textiles	4.7	8.0	1 [a]	..	8
Food processing	1.0	9.5	1½ [a]	..	20

Sources: Statistical yearbooks and plan fulfilment reports; *Scînteia*, 6 December 1959; *Zeri i Popullit*, 24 December 1959.

[a] First nine months.

[b] Not including construction components, and repair shops, which in 1958 had a weight of 3.9 and 4.9 per cent, respectively.

The growth of engineering output has been supported by steadily rising steel production at rates generally not different from those of the recent past, though accelerating in eastern Germany and Rumania. It also depended on a rapid growth of net imports of steel into eastern Germany and on a cutting back of net exports of steel in Czechoslovakia and in Hungary — where they are, however, very small; but in Poland steel supplies seem to have been sufficient to permit a considerable rise in the (small) margin of net exports (see Table 6). In Czechoslovakia, anxiety has been expressed about the possibility of raising output of metals on the scale required to support the expansion of metal-using foreseen in the long-term plan, and special investment efforts are planned in this field (see Chapter III, sections 3 and 4). As can be seen from the following figures, the rise in production of crude steel in the eastern European countries [12] as a group was above the rate foreseen in the long-term plans, and that for rolled products at about the long-term rate; and in the Soviet Union the rates of growth in 1959 were well above those of the long-term plan.

	Crude steel		*Rolled steel*	
	Annual percentage increases from 1958 level			
	1959	*1965 Plan*	*1959*	*1965 Plan*
Eastern Europe	11	< 9	9	> 9
Soviet Union	9	6½-7½	9 [a]	6-7

[a] Excluding tubes, for which the rise was 13 per cent.

Although chemicals is a priority branch under all the long-term plans so far published, its rate of expansion in 1959 exceeded that of the engineering and building materials industries only in Poland and Rumania.[13] Significantly, this was most rapid (18-20 per cent) in the countries — Poland, Hungary and Rumania — which continue to develop their traditionally important branches of the industry and are so far undertaking only relatively small-scale extensions of its boundaries. In Poland, however, new capacities for synthetic rubber, plastics, nitric acid and sulphur contributed to the rise in production, as did new capacities for fertilizers, synthetic fibres and plastics in Rumania. In Czechoslovakia, eastern Germany and the Soviet Union the growth of output — though in the range of 10-12 per cent in 1959 — cannot be expected to accelerate to the rates foreseen in the long-term plans until very substantial new investment has been completed. The output plan was not completely fulfilled in 1959 in the Soviet Union; and part of the explanation appears to lie in delays in deliveries of chemical equipment, including imported equipment which is to provide a particularly substantial supplement to domestic supplies in the early stages of the new investment programme.[14]

Fuel supplies ceased to be a serious hindrance to general industrial expansion in the course of 1957 or 1958 in all countries, and have continued to be satisfactory during last year. The partial data available in Table 7 suggest that the adaptation of the structure of fuel consumption towards greater reliance on petroleum and natural gas is now under way in most eastern European countries — as it has been for some time in the Soviet Union. However, imports of oil remain small as yet — though rising fast — throughout eastern Europe. Coal output appears to have been lower than in 1958 in Czechoslovakia, and to have stagnated in eastern Germany, while it rose only slowly in the Soviet Union — where oil and natural gas production are growing rapidly. However, a 5 per cent rise of coal output was achieved in Poland, after a virtual stabilization during 1956-1958, and is

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[12] Production in Rumania was as follows in 1959:

	Crude steel	*Rolled steel*	*Steel tubes*
Thousands of tons	1 419	755	272
Percentage increase from 1958 . .	52	20	84

[13] The 18 per cent rise in building materials output planned in eastern Germany was not attained, but the exact magnitude of the shortfall is unknown.

[14] See the *Bulletin*, Vol. 11, No. 1, p. 6, and No. 3, p. 30.

Table 6

Supply of some steel-making materials, steel and engineering products in five countries in 1959

Thousands of tons, and percentage change from 1958

Country and product	Quantity			Percentage increase from 1958		
	Production	Net imports (+) or exports (−)	Supply	Production	Net trade	Supply
Bulgaria						
Crude steel	230	+37[a]	267	9	539[a]	23
Rolled steel	167	+221[b]	..	20	−11[b]	—
Steel tubes	(7)[c]	+20[b]	27 *	0 *	..	..
Engineering products	..	..	..	49	..	..
Czechoslovakia						
Iron ore (Fe content)	1 060	(+6 480)[d e]	..	6	26[e]	..
Pig iron	4 245	+182[a]	4 382	12	−19[a]	10
Crude steel	6 186	—	6 100	11	—	11
Rolled steel	4 019	−12[a]	3 988	7	−94[a]	12
Steel tubes	552	−138[a]	414	6	−17[a]	17
Engineering products	..	..	..	17	..	..
Eastern Germany						
Pig iron	1 898	+635[f]	2 533[f]	7	22	10
Crude ingot steel	3 207	—	3 207	5	—	5
Hot-rolled steel	2 488	+1 006[f]	3 493[f]	10	27	14
Engineering products	..	..	..	18	..	..
Hungary						
Iron ore (Fe content)	116	(+1 700)[d]	..	16	−6	..
Metallurgical coke	363	+1 021	1 384	8	−10	−6
Pig iron	1 104	+60	1 164	2	56	4
Crude steel	1 760	—	1 760	8	—	8
Hot-rolled steel	1 140	−41	1 099	6	−56	12
Engineering products	..	..	..	17	..	..
Poland						
Iron ore (Fe content)	680 *	(+6 200)[d]	..	−8 *	8	..
Metallurgical coke	10 980 *	−2 050[a]	8 930	3 *	−1[a]	4
Pig iron	4 374	+106[a]	4 480	13	..	16
Crude steel	6 159	—	6 159	9	—	9
Rolled steel	4 060	−348	3 712	10	67	7
Steel tubes	333	−55	278	6	10	5
Engineering products	..	..	..	18	..	..

Sources : Statistical yearbooks, bulletins, plan fulfilment reports and plan documents; *Rabotnichesko delo*, 22 December 1959; *Der Aussenhandel*, No. 23, 1959; and UN, *Quarterly Bulletin of Steel Statistics for Europe*, Vol. X, No. 3.

[a] Nine months at annual rate.

[b] Eastern trade area only.

[c] 1958.

[d] Ton for ton (Fe content of Soviet ores — the major part of imports in all countries — varies between 50 and 60 per cent).

[e] Ten months at annual rate.

[f] Including expected imports from the Soviet Union only.

attributed mainly to rising labour productivity following on considerable investment efforts and improvements in management. In Rumania crude petroleum extraction remains sluggish, but exploitation of natural gas supplies is increasing fast.

Electricity generation at least kept pace with the overall industrial expansion in most countries, and Czechoslovakia added 574 MW to generating capacity in 1959, compared with 326 MW in 1958. However, the rise of power production fell short of industrial expansion slightly in Rumania and more seriously in Hungary and especially eastern Germany:

	Electric power output in 1959		*Ratio of rise in power production to rise in gross industrial output*
	Millions of MWh	*Percentage increase from 1958*	
Albania	0.18	18	0.91
Bulgaria	3.87	28	1.12
Czechoslovakia	21.88	12	1.06
Eastern Germany	37.24	7	0.55
Hungary	7.10	9	0.75
Poland	26.38	10	1.11
Rumania	6.80	10	0.91
Soviet Union	264	12	1.09

Sources : Statistical yearbooks, bulletins and plan fulfilment reports; UN, *Quarterly Bulletin of Electric Energy Statistics for Europe*, Vol. IV, No. 3.

TABLE 7

Supplies of primary fuels in 1959

Millions of tons of coal and petroleum and billions of cubic metres of natural gas (totals for coal and for all fuels in terms of hard coal equivalent)

Country and product	Production		Net imports or exports (−)		Supply	
	Quantity	Percentage increase from 1958	Quantity	Percentage increase from 1958	Quantity	Percentage increase from 1958
Bulgaria						
Coal	8.0 [a]	21	—	—	8.0	21
Crude petroleum [b]	0.2	−10	0.7	25	0.9	16
Total	8.3	20	1.0	25	9.3	21
Czechoslovakia						
Coal	49.6	−3	0.3 [c]	−64 [c]	49.9	−4
Crude petroleum [b]	0.1	16	2.4 [c]	48 [c]	2.5 *	48 *
Natural gas	1.6 *	25 *	—	—	1.6 *	25 *
Total	51.6	−2	3.7 *	22 *	55.3 *	−1 *
Eastern Germany						
Coal	67.1 [d]	— [d]	10.1 [e]	24 [e]	77.2 [e]	2
Crude petroleum [b]	—	—	1.4 [e]	26 [e]	1.4 [e]	26
Total	67.1 [d]	— [d]	12.1 [e]	23 [e]	79.2 [e]	3
Hungary						
Coal	12.2	4	1.3	10	13.5	5½
Crude petroleum [b]	1.0	25	1.0	5	2.0	14
Natural gas	0.2	−10	0.2	..	0.4	100
Total	13.8	6	3.0	20	16.8	9
Poland						
Coal	101.9	5	−17.1	−1	84.8	6
Crude petroleum [b]	0.2	—	2.2	19	2.4	16
Natural gas	0.4	11	0.2 *	0 *	0.7	6
Total	102.7	5	−13.7	−4	89.1	6
Rumania						
Coal	3.5 [a]	8	..	..	..	..
Crude petroleum	11.4	1	..	..	..	..
Methane gas	5.8	14	..	..	..	..
Total	27.4	5	..	..	..	..
Total of six countries						
Coal	242.3	2½	..	..	..	..
Crude petroleum	12.9	1	..	..	..	..
Natural gas	8.0	15	..	..	..	..
Total	271.0	3	..	..	..	..
Soviet Union						
Coal	382.9 [a]	2	..	..	..	..
Crude petroleum	129.5	14	..	..	..	..
Gas	37.2 [g]	25	..	..	..	..
Total	609.1	7	..	..	..	..

Sources : Statistical yearbooks, bulletins, plan fulfilment reports and plan documents and UN *Quarterly Bulletin of Coal Statistics for Europe,* Vol. VIII, No. 3.

[a] Assuming calorific content as in 1958.

[b] Including petroleum products in imports and exports.

[c] First nine months at annual rate.

[d] First eleven months at annual rate.

[e] Including trade with the Soviet Union, Poland and western Germany only. Excluding exports of brown-coal briquettes and petroleum products.

[f] Including only methane gas and not natural gas from the oilfields.

[g] Including approximately 2 billion cu.m. coal and shale gas (excluded from total fuel figure).

Eastern Germany seems to be the only country facing significant difficulties in adapting energy supplies to rapidly rising industrial and (for electricity) household demand. On the demand side the problem is intensified by rapid expansion of especially power-intensive industries: on the supply side coal output seems to be stagnating and delays continue in developing the Schwarze Pumpe lignite combine and in completing the Lübbenau power station. The extent of underfulfilment of plans for new capacity installation in this field was considerable in 1959:

	Percentage of plan fulfilment
Thermal-electric power plants . .	30
Steam boiler plants	67
Brown coal mines	80
Petroleum refineries	48

Source : Die Wirtschaft, 18 February 1960.

(b) Developments in agriculture

Farm Output in the Soviet Union

Official reports have now confirmed the estimate of the Soviet grain harvest given in the last *Bulletin*,[15] at a level practically at the mid-point of the range there stated. Although well below the 1958 record, the 1959 crop of 125 million tons — nearly as high as in 1956 — can be regarded as reasonably good, despite summer drought in some areas and bad harvesting weather in the virgin lands zones and elsewhere (see Table 8). The areas of irregular rainfall — the Volga Zone, the Urals and Kazakhstan — accounted for one-third of the Soviet crop in 1958 and are, of course, particularly subject to variations in yield. However, Kazakhstan has now had two good crop years in succession, despite harvesting delays which caused the loss under snow in 1959 of some 1.6 million tons, or 6.9 per cent of the crop in that area ; and the virgin land regions (including those cultivated before 1954) contributed an unprecedented share of 60 per cent of total state procurements of grain other than maize.[16]

Improvements in crop rotation and the generalization of autumn (instead of spring) ploughing rank first among the agro-technical practices which, it is hoped, will help to stabilize yields in future. The reduction of harvesting losses to their present level has already involved heavy investment in equipment and in transport and storage facilities. In 1959 state investment in the virgin lands was 6.7 billion roubles, or about one-third of all state investment in agriculture and above the 1954-1958 average rate; and in 1960 it is planned to install elevators and other storage capacities in the eastern regions for 3.1 million tons of grain (as compared with capacity for 2.5 million tons planned, but only 1.1 finished by 1 August, in 1959).[17] Nevertheless, the target set for 1960 looks ambitious, implying a combination of maximum harvests in all the major grain-growing regions listed in Table 8.

Sugar-beet output suffered in 1959 from both the summer drought and unfavourable harvesting weather, and output fell by one-fifth despite a 20 per cent increase in the area sown. No data on output of other

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[15] Vol. 11, No. 3, p. 36.

[16] *Pravda*, 13 November 1959.

[17] See speeches by Mr. Khrushchev and Mr. Kosygin, *Pravda*, 28 October and 13 December 1959, and *Mukomolnaya i elevatornaya promyshlennost*, No. 8, 1959.

TABLE 8

Output and yields in the main grain-producing areas of the Soviet Union

Crop in millions of tons and yields in quintals per hectare

	1955		1956		1957		1958		1959		1960 Plan
	Crop	Yield	Crop	Yield	Crop	Yield	Crop	Yield	Crop	Yield	Crop
Total Soviet Union	106.8	8.4	127.6	10.0	105.0	8.4	141.2	11.3	124.8	10 *	150
RSFSR	59.4	7.7	72.0	9.5	59.2	8.0	79.0	10.7	68.8	9 *	86
of which :											
Central Zone	18.7	..	13.7	7.2	14.9	8.2	17.0	9.4	..	..	..
Volga Zone	9.0	..	9.3	7.0	5.1	4.0	14.6	11.4	..	..	..
Northern Caucasus	10.8	..	11.8	12.6	11.0	12.9	17.7	19.0	..	..	..
Urals	6.3	..	12.0	9.9	6.2	5.3	8.3	7.1	..	..	..
Siberia	13.1	..	23.5	12.1	20.2	10.0	19.9	10.1	..	..	..
Kazakhstan	4.8	6.8	23.8	10.6	10.6	4.6	22.0	9.5	18.8	9 *	24
Ukraine	34.2	15.8	23.8	12.1	26.3	14.8	31.3	17.1	27.8	15 *	34

Sources : Narodnoe khozyaistvo SSSR v 1958 godu; Posevnye ploshchadi SSSR ; Pravda, 25 November and 23 December 1959.

NOTE. — Grain includes pulses and dry-grain equivalent of maize harvested at lacto-cerotic stage.

food crops have been released, but state procurements of sunflower seed were 23 per cent below the 1958 level, those of potatoes nearly as high as in 1958, and procurements of vegetables 8 per cent higher.

The cotton harvest (4.7 million tons unginned) was a record. In Uzbekistan, the main cotton-growing republic, 330,000 tons of cotton, or some 10 per cent of the crop, were harvested mechanically as against only 65,000 tons in 1958, and labour-days worked in cotton-growing collective farms decreased in 1959 by 25 million or 15 per cent.[18]

An estimated increase of 9 per cent in gross output of animal products has probably offset the effects on total gross agricultural output of the smaller harvest.[19] The highest increases were in meat output — 12 per cent — eggs and wool; but milk production rose by only 5 per cent, reflecting, as in many other European countries, reduced fodder supplies resulting from the summer drought (see Table 11 below). The rise in meat output seems once again to have outrun the growth of refrigerating and packing capacities; and a decree of the Party Central Committee and the Council of Ministers[20] has therefore again recalled the lag between the increase in the number (and weight) of animals procured by the state and the growth of capacities for their slaughter and processing. It has recommended — *inter alia* — the construction of smaller meat combines (with a capacity of 30-50 tons per shift), to be supplied with animals from within a radius not exceeding 50-150 km. and to be put into operation in not more than two years.

The 1960 targets for meat and milk production — respectively 12.6 million tons (or 23 per cent more than in 1959) and 72 million tons (an increase of 16 per cent) — seem no less ambitious than those for grain output. The carry-over of grain from the 1959 harvest is lower than last year's; and quantities left at farm disposal[21] for human consumption, seed and fodder, and sales on farm markets, amount to 77 million tons, compared with 83 million tons in 1958-1959. Yields of maize for silage were lower than expected in 1959, and total production of silage, of which maize represents three-quarters, was 150 million tons (1 per cent more than last year), compared with 282 million tons planned.[22]

Farm Output in Eastern Europe

Preliminary harvest results for the eastern European countries were published in the last issue of the *Bulletin*;[23] but revisions of provisional reports, and additional data, now permit a more complete appraisal of the 1959 results. The revised harvest estimates are shown in Table 9.

The largest increases in gross agricultural output were obtained in Rumania, Bulgaria and Albania. In Rumania, grain output increased by 45 per cent from the low 1958 level, but did not reach that of 1957; and production of sugar-beet and sunflower seed nearly doubled, partly as a consequence of increases in the area sown. Rumanian output of animal products appears to have risen by some 6-7 per cent. Bulgarian gross agricultural output can be estimated, on the basis of increases in production of the most important products, to have risen by some 15 per cent.[24] The increase over 1958 — a very bad year for fodder grain and sugar-beet, though on average about as good as 1957 — was much faster for crop output (although none of the extremely high plan targets for 1959 has been reached) than for animal production, which can be estimated to have risen by some 5 per cent. Perfect weather in Albania in 1959 contrasted with a dry 1958 season, and gross crop production rose 27 per cent over the 1958 level and 25 per cent above the 1955-1958 average: grain, tobacco and cotton were reported to have done particularly well.

Gross agricultural output in Hungary rose by some 3 per cent, as planned, despite the fact that 1959 was a year of profound institutional change (see below). As in Rumania and Bulgaria, crop output expanded faster than livestock production, which was planned to remain at about its 1958 level and has slightly increased. This faster expansion is still apparent even if measured from 1957, a year of excellent harvests.

In Poland, where gross agricultural output has recently been rising by a steady 4 per cent a year to a

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[18] See *Pravda*, 24 December 1959, and *Khlopkovodstvo*, No. 8, 1959, p. 33. Although hand-picking removes more cotton per plant, mechanization enables picking to be completed at the most suitable time.

[19] Money incomes of collective farms (from sales to the state and on farm markets) have increased by 6 per cent (as compared with 10 per cent planned), probably as a consequence of larger sales of animal products. Prices paid by the state were unchanged and there was a fall of 6 per cent in the average level of prices on farm markets.

Money incomes of collective farms

Billions of roubles

1957	*1958*	*1959 Plan*	*1959 Actual*	*1960 Plan*
95.2	131.8	145	140	154-158

Sources: *Narodnoe khozyaistvo SSSR v 1958 godu*; *Dengi i kredit*, No. 6, 1959, p. 54; and Mr. Garbusov's speech in *Pravda*, 28 October 1959.

[20] *Pravda*, 25 October 1959.

[21] Obtained as the difference between output and state procurement.

[22] *Pravda*, 23 December 1959; plan fulfilment report and *Sovet deputatov trudyashchikhsya*, No. 10, 1959, p. 7.

[23] Vol. 11, No. 3, pp. 36-37. For rates of growth of total output in past years see also Chapter III, Table 1.

[24] An official statement (*Rabotnichesko delo*, 22 December 1959) has mentioned an increase of 23 per cent, but this probably includes farmers' work on irrigation, other melioration schemes, road building, construction, etc., which was considerably more extensive in 1959 than in 1958.

TABLE 9

Harvest results in six eastern European countries

Millions of tons and index numbers

	1957	1958	1959	1959 Index 1958 = 100
	Millions of tons			
Albania				
Bread grain [a]	0.14	0.11	0.16	145
Cotton	0.016	0.017	0.018	106
Bulgaria				
Bread grain [a]	2.53	2.43	2.53	104
Barley	0.48	0.44	0.55	125
Maize	1.49	0.87	1.48	169
Sunflower seed	0.21	0.22	0.28	126
Sugar-beet	1.43	0.89	1.46	165
Tobacco	0.07	0.08	0.09	122
Cotton	0.05	0.05	0.05	111
Tomatoes	0.37	0.46	0.47	101
Grapes	0.57	0.84	0.66	78
Czechoslovakia				
Bread grain [a]	2.47	2.28	2.61	114
Barley	1.35	1.20	1.47	123
Oats	0.90	0.87	0.94	108
Maize	0.45	0.48	0.54	113
Potatoes	8.76	6.59	[b]	[b]
Sugar-beet	6.78	6.95	5.07	73
Hungary				
Bread grain [a]	2.45	1.86	2.35	126
Barley	0.96	0.74	1.09	147
Oats	0.26	0.19	0.26	137
Maize	3.23	2.83	3.55	125
Sugar-beet	1.88	2.07	2.81	136
Grapes	0.54	0.89	0.54	61
Poland				
Bread grain [a]	9.76	9.65	10.56	109
Barley	1.23	1.21	1.03	85
Oats	2.54	2.67	2.48	93
Potatoes	35.10	34.80	35.70	103
Sugar-beet	7.62	8.43	5.97	71
Rumania				
Grain (total)	11.04	7.29	11.70	160
of which : Wheat	3.70	2.91	4.00	137
Maize	6.34	3.66	5.70	156
Sunflower seed	0.26	0.29	0.53	183
Sugar-beet	2.04	1.73	3.40	197
Grapes	0.88	1.17	0.97	83

Sources : Statistical yearbooks and bulletins; plan fulfilment reports; *Népszabadság*, 3 October 1959; *Pénzügy és számvitel*, No. 12, 1959, p. 451.

[a] Wheat and rye.

[b] About the same level as in 1958.

record 1958 level, drought during the crucial vegetation period in May, and again from August until the late autumn, prevented realization of the high expectations of the spring. In the event, total gross output was 1 per cent below that of 1958 — owing to lower total crop production despite larger harvests of grain, potatoes, oil-seeds and hay. The sugar-beet crop — relatively highly priced and therefore weighing heavily in total output — fell by some 30 per cent below the 1958 level, but this fall will be partly compensated by a higher sugar content. Animal production was nearly as great as in 1958, the decrease in pork production being made good by increases in output of beef, milk, eggs and wool.

In Czechoslovakia, gross agricultural output, stagnating in recent years, fell by 1.4 per cent in 1959 (compared with an original plan for a 12 per cent rise, lowered during the year to 4 per cent) as plant production dropped by 4.5 per cent. Wheat, maize and barley yields reached record levels; but crops of potatoes — for the second year in succession — sugar-beet, oil-seeds, hops, fruit and grapes were below plan, though here too a higher sugar content of beet can be expected. Animal production rose by 2.4 per cent, the drop in pork and veal output being more than offset by higher production of beef, eggs and wool; and milk supplies were maintained despite the shortage of green fodder during the summer. Eastern Germany seems to have been particularly affected by unfavourable weather conditions, especially drought. Grain and sugar-beet crops were lower than in 1958, and a very unsatisfactory potato harvest for the second consecutive year will adversely affect pork output during 1960. Final data on animal production have not yet been published; but in the first eleven months of the year milk and meat output were both 3 per cent below the corresponding 1958 levels and production of pig-meat alone fell by 11 per cent. State procurements of pigs, milk and eggs in the whole year were lower than planned: procurements of pork were 8 per cent less than in 1958, but cattle procurements were 25 per cent higher and 8 per cent more than planned.

In both eastern Germany and Czechoslovakia the emphasis on expanding animal production, despite poor crops, necessitated higher imports of feeding-stuffs in 1959. Both these countries have also considerably increased the area under maize for silage and plan to extend it farther in 1960. In Czechoslovakia the increase is equivalent to 65 per cent of the 1958 silage area, and in eastern Germany 350,000 hectares (5 per cent of the total cultivated area) are to be sown in 1960. A plan to extend considerably the area under maize for silage in all CMEA countries was announced at the meeting of Party and Government leaders in Moscow at the beginning of February 1960. In Rumania it is intended to sow 1 million hectares, or 25 per cent of the maize area, for silage this year, and in Hungary maize is to be grown for silage on 200,000 hectares (2.1 per cent of the total crop area).

TABLE 10

Transfers of land from private to co-operative and state farms in four eastern European countries, 1957 to 1959

Areas in thousands of hectares [a] at end of year or of month, and percentages

	Co-operative	State	Private	*Co-operative and state land as percentage of total*
Czechoslovakia				
1957	3 472	1 266	2 457	*64.6*
1958	4 335	1 347	1 620	*76.9*
1959	4 789	1 447	1 153	*84.4*
Eastern Germany				
1957 [b]	1 565	549	4 351	*32.7*
1958	2 386	555	3 508	*45.6*
1959	2 908	445	3 095	*52.0*
Hungary				
September 1956	1 242	779	3 380	*37.4*
1958	834	752 [c]	3 789	*29.5*
1959	2 240	767	2 355	*56.1*
January 1960	2 782	767	1 812	*66.2*
Rumania				
1957	3 365	1 292	5 044	*48.0*
1958	4 072	1 319	4 361	*55.3*
1959	5 550 *	1 500 *	2 700 *	*73*

Sources : Statistical bulletins and yearbooks and plan fulfilment reports; *Népszabadság*, 30 January 1960.

[a] Agricultural land, including private plots of co-operative farms members in Czechoslovakia and eastern Germany; arable land in Hungary and Rumania.

[b] 15 June 1957.

[c] 31 March 1959.

Institutional Changes in Eastern Europe [25]

Changes in the institutional framework of farming have continued in eastern Europe on familiar lines, except for one new departure in Poland (see below). The collectivization drive during 1959 was intense in Hungary and Rumania, and more moderate in Albania, Czechoslovakia and eastern Germany; and in the first two countries the area under individual farming was reduced by nearly 40 per cent in the course of the year (see Table 10).

In Hungary the first wave of collectivization — December 1958 to March 1959 — transferred one-fifth of all arable land to the co-operative sector; and a second wave, following a resolution of the Central Committee of the Hungarian Socialist Workers' Party at the end of October 1959, added a further one-sixth of the arable area by the end of January 1960. The private-farm sector was thus reduced from 71 per cent of the arable land to 34 per cent.

The salient event in this field in Rumania during 1959 was the decision taken at the end of March to expropriate all land not directly cultivated by the owner and his family,[26] which led immediately to a large-scale transfer of land to the socialist sector. During April alone the co-operative sector increased by 0.8 million hectares, or 8 per cent of the total arable area, and transfers over the year as a whole raised the share of the whole socialist sector from 55 per cent to 73 per cent. The 1.6 million hectares of arable land taken over from private farming were transferred mainly to co-operative farms, but state farms benefited also (to the extent of 0.17 million hectares).

In Albania, where the share of the arable area under co-operative or state farming had already reached 76 per cent at the beginning of 1959, a new drive during August-October raised the share to 83 per cent and brought the number of peasant households which are members of co-operative farms up to 70 per cent of the total.

Only 16 per cent of agricultural land in Czechoslovakia was privately owned by the end of 1959, following transfers of 7½ per cent to state or co-operative ownership during the year. Some 80 per cent of the farms still in individual ownership are tiny farms (with an area of less than two hectares) belonging to workers. Attempts continue to persuade these owners also to enter co-operatives; but, with collectivization nearing completion, increased consideration is being given to institutional improvements of existing co-operative farms. Up to the end of November, co-operative farms had purchased 43 per cent of the tractors and 57-62 per cent of other machinery from the stock of machine and tractor stations (MTS), and the remainder is to be transferred during 1960. Concurrently, taxation is to be adapted to ensure a more equitable distribution of farm income. The basis of the tax will be gross money receipts, including labour-day payments in kind to collective farmers, *minus* allocations to indivisible funds; and the rate will vary between 1 per cent and 7 per cent, according to the region of production. The main objects of the change, combined with the increases in farm prices mentioned in section 4 below, seem to be to increase incentives for sales by peasants and for collective farm investment and, in addition, roughly to offset inter-regional advantages arising from climatic, soil or transport conditions. Another change reported to be in progress, though as yet on a small scale, is the introduction of fixed minimum wage payments for collective farm members on lines similar to the development in the Soviet Union noted below.

The absorption of land under individual farming into the socialist sector in 1959 was of similar proportions in Czechoslovakia and eastern Germany; but in the latter country 48 per cent of the total area still remained in private ownership at the end of the year. The collectivization drive seems to have gained momentum in December; 333 of the 800 new co-operative farms set up in eastern Germany during the year were established in the last month, and in January 1960 nearly 11,000 farmers are reported to have joined co-operatives, compared with an average of 7,500 a month during January-November 1959.

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[25] See also the *Bulletin*, Vol. 11, No. 3, pp. 41-42.

[26] *Ibid.*, No. 1, p. 9.

In Poland during 1959 the main stress has been on establishing a new scheme for the development of agriculture — and, in particular, the financing of agricultural investment — through the " agricultural circles ".[27] Payments into the Fund for Agricultural Development during the year amounted to 1.55 billion zlotys, of which 1.36 billion were paid to agricultural circles and co-operative farms and the rest allocated for investment in industries producing agricultural machinery; and total payments to the Fund in 1960 are expected to be about 4 billion zlotys.

Institutional Changes in the Soviet Union

1959 can be considered as a year of transition in the Soviet Union, devoted to the consolidation of the two far-reaching reforms introduced in 1958 — the sale of MTS machinery to collective farms[28] and the re-moulding of the procurement system. However, all sectors of Soviet agriculture are now facing new structural changes. The gradual disappearance of differences between collective and state farm structures, and further socialization of production (particularly animal husbandry) have been foreshadowed during 1959; and the Ministry of Agriculture of the USSR, together with local party and professional organs and research institutes, has submitted to the Communist Party Central Committee preliminary proposals for additional institutional changes.[29]

The tendency noticeable in recent years[30] to bring closer together the organizational structure of collective and state farms is now being advocated more explicitly; and the idea of a new type of farm, combining what are considered the best features of each of the older forms, seems to be taking shape. It is suggested, for instance, that the remuneration system should provide for a guaranteed minimum wage, but also for closer dependence of total earnings on production results than at present exists in state farms, and that farm management should combine the efficiency of state farm administration with the close relationship between director and farm members of the collective farm.

The Minister of Agriculture has suggested that new state farms should be created only by reclamation of new land or by taking over subsidiary farms of state enterprises, possibly including near-by small collective farms, and that sources of finance for any new state farm should be determined in advance (to put an end to difficulties created by the past practice of financing new state farms from funds allocated to those already in existence). The policy of stabilizing state investment in agriculture — 19 billion roubles are planned for 1960, as against 23 billion in 1957 and 22 billion in 1958 — also suggests that no significant transformation of collective into state farms is envisaged.[31]

Other proposals to the December 1959 Plenum included the creation of special *raion*, *oblast* or republican organs, to be elected by collective-farm directors for the management of farm unions.[32] The functions of such organs would include operative management of collective farms, the reinforcement of inter-farm links through the building up of common funds in cash and in kind, decisions on supplies of materials and machinery, and help to weaker farms.[33] However, the Minister of Agriculture, and Mr. Khrushchev, although agreeing to the creation of inter-farm unions in *raions*, warned against their extension to the *oblast* or republican level — i.e., against the creation of a unique system of collective farms — partly on the grounds that this would tend to delay the intended merging of collective and state farms into a single type of farm.[34]

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[27] See the *Bulletin*, Vol. 11, No. 3, pp. 42-43.

[28] Since the reform started in the spring of 1958, collective farms have taken over some 85 per cent — or some 18 billion roubles' worth — of the machinery stock in MTS; and they have spent 14 billion roubles on buying new machinery.

[29] See the speech of the Minister of Agriculture to the December Plenum, *Pravda*, 26 December 1959.

[30] See the SURVEY for 1958, Chapter I, pp. 17-18, and the *Bulletin*, Vol. 11, No. 3, p. 40.

[31] In 1959, 500 new state farms have been created (as against only 150 in the preceding year), probably mainly by transformation of subsidiary farms belonging to state enterprises. The share of procurements from state farms in total procurements, which has grown from year to year, is planned further to increase in 1960 for meat, from 22 per cent in 1959 to 31 per cent; but it is to remain the same for grain (38 per cent) and milk (25 per cent).

[32] The problem of their creation has become more urgent with the rapid development during 1959 of inter-farm organizations. In the Russian Federation (RSFSR), there existed at the end of 1959 600 inter-farm organizations for construction and for production of building materials. In the Ukraine, 85 per cent of all collective farms were co-operating among themselves in 1,000 inter-farm organizations and enterprises. Farm unions seem also to be preferred to a further amalgamation of farms, the average size of which — according to Mr. Khrushchev — has already reached an optimum level at which further concentration might lower the efficiency of farm management.

[33] See, for instance, the speech delivered by the President of the Council of Ministers of the RSFSR at the December 1959 Plenum, *Pravda*, 23 December 1959.

[34] For facilitating this process it is also intended to develop co-operation between collective and state farms by joint utilization of artificial insemination and poultry incubator stations, plants for producing feeding-stuffs from waste products of food-processing plants, etc.

Proposals for a reform of the remuneration system in state farms are now being worked out by the Ministry of Agriculture; but the unification process has already made some progress during 1959 with the introduction in a fairly small number of collective farms of scales of cash payment quite unrelated to the old " labour-day " unit.[35] At the beginning of the year minimum monthly payments are fixed in each farm according to its budget estimates for the year; and if production later exceeds expectations, supplementary payments are then made. The new system is thus a ' minimum-wage *plus* bonus ' system rather than one of simple time-wages or piece-rates. The total of a farmer's earnings still depends on the level of output, and on the residual left for distribution after allocations from the farm's gross receipts have been made for operating expenses and investment. Moreover, around one-quarter of the total payments to individuals is still made in kind.[36]

The reduction of differences in levels of labour remuneration in state and collective farms has also been among the major subjects of discussion both at the December 1959 Plenum and in current literature. Whereas collective farmers' incomes have considerably improved since 1953, as a result of, *inter alia*, massive price increases and reductions of obligatory delivery quotas, the average is still below that of state farms. From estimates of the remuneration per man-day and of days worked during the year in state and collective farms [37] it can be deduced that in 1956-1957 the average remuneration in state farms reached some 400 roubles per month, as against 220-230 roubles (165-175 for women) in collective farms — both figures including remuneration in kind and excluding incomes from private plots. Since then, remuneration in collective farms has increased by some 10 per cent, but the gap remains considerable.[38]

However, the spread of incomes is considerably wider among collective than among state farms, with their unified wage-system:

Percentage of " raions " with remuneration per man-day at the following percentages of the all-Union average remuneration:

	< 51	*51-75*	*76-125*	*126-175*	*>175*
Collective farms					
1954-1955.	5.9	35.6	41.8	14.4	2.3
1957-1958.	—	27.2	51.5	18.2	3.1
State farms					
1957-1958.	—	4.2	95.3	0.3	0.2

Source : T. Zaslavskaya, *Voprosy ekonomiki*, No. 11, 1959, p. 63.

TABLE 11

Collective, state and private animal husbandry in the Soviet Union, 1953 to 1959

		Collective and state farms	Private farms	Total	*Collective and state farms as percentage of total*
Livestock numbers (*millions at end of year*)					
Cattle	1953	31.2	23.7	55.8	*55.9*
	1958	40.3	29.5	70.8	*56.9*
	1959	47.4	..	74.1	*64.0*
of which : Cows . .	1953	9.8	15.1	25.2	*38.9*
	1958	14.4	18.6	33.3	*43.2*
	1959	16.3	..	33.9	*48.1*
Pigs	1953	17.1	15.5	33.3	*51.4*
	1958	31.3	15.6	48.7	*64.3*
	1959	36.7	..	53.3	*68.9*
Sheep	1953	83.8	15.0	99.8	*84.0*
	1958	100.0	29.1	129.9	*77.0*
	1959	105.7	..	136.1	*77.7*
Output (*millions of tons*)					
Meat [a]	1953	2.5	3.0	5.8	*43.1*
	1958	3.3	4.1	7.7	*42.9*
	1959	4.2	..	8.6	*48.8*
Milk	1953	11.4	24.4	36.5	*31.2*
	1958	26.7	27.8	58.7	*45.5*
	1959	30.5	..	62	*49.2*
Eggs (*billions*)	1953	2.4	13.6	16.1	*14.9*
	1958	3.3	19.7	23.0	*14.3*
	1959	4.3	..	24.8	*17.3*
Wool (greasy) .	1953	0.20	0.04	0.24	*81.7*
	1958	0.25	0.07	0.32	*78.1*
	1959	0.28	..	0.35	*78.6*

Sources : Narodnoe khozyaistvo SSSR v 1958 godu; Vestnik statistiki, No. 1, 1960, p. 95.

NOTE. — The difference between the total and the sum of the first two columns represents auxiliary farms of state enterprises. The expansion of the state and collective sector shown in the first and last column is somewhat exaggerated as a result of the gradual absorption of such farms by state farms during the period.

[a] Slaughter weight, including lard and offal.

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[35] By the end of the year 2,000 farms in the RSFSR (out of 38,000) and 1,000 in the Ukraine (out of 13,000) had gone over to this new remuneration system.

[36] This is much less than under the old system, still applied in the majority of farms. The share of payments in kind in the total value of labour-day dividends, although decreasing in recent years, has remained considerable:

1955	*1956*	*1957*	*1958*
58	48	45	42

Source : L. Suvorova, *Voprosy ekonomiki*, No. 1, 1960, p. 143.

The prices at which remuneration in kind is valued are therefore an important, but still controversial, issue. Practice varies between farms; in some, products distributed in kind are valued at their farm cost, in some others at state procurement prices, and in others at the much higher state retail prices.

[37] See an article by A. Teryaeva in *Voprosy ekonomiki*, No. 1, 1959, pp. 108-109.

[38] *Index numbers, 1954 = 100*

	1955	*1956*	*1957*	*1958*
Remuneration per man-day in collective farms	129	155	153	169
Average number of man-days worked in collective farming per year	98	91	95	95

Source : T. Zaslavskaya, *Voprosy ekonomiki*, No. 11, 1959, p. 60.

At a conference of the Institute of Economics on economic problems of collective farms (May 1959), it was stated that in 1958 about 25 per cent of all collective farms had reached a level of labour remuneration at least equal to that of the average state farm and that 18 per cent even exceeded it.[39] But whereas the average value of a labour-day (in money and in kind) can be estimated, very roughly, to be some 8 roubles for the whole of the Soviet Union,[40] in very favoured farms — such as 61 sub-tropical fruit-growing farms in Georgia — it exceeds 30 roubles, to which earnings from private plots must be added, and some farms can even distribute as much as 40-50 roubles per labour-day. The final resolution of the Party Central Committee session of December 1959 therefore recommends that "labour remuneration in collective farms should not outstrip the wage level in the same *raion* or *oblast*" and supports proposals made by Republican officials that procurement prices for cotton, tea, melons, grapes, other fruit and wool be lowered and brought closer to the prices paid for these products to state farms.[41]

Many of the farms going over to the 'guaranteed (minimum) cash payment' system described above have cut down the size of private plots and probably also lowered the maximum number of animals allowed to be privately owned.[42] This is in line with reiterated suggestions during the December 1958 Plenum that state and collective farms should buy young animals owned by farm members. Another important contributory factor to the transfer of animals from the private to the collective sector during 1959 (reflected in the data in Table 11) has been the sale of all livestock in the RSFSR (and probably also in other Republics) owned by urban workers and employees, who from 1 October 1959 were forbidden by decree to keep any productive or working livestock.[43] In the first stage, only capitals of autonomous republics, *oblasts* and *krais* (with the exception of six towns in the North and in the Far East) fell under this interdiction, which is later to be extended to all other towns and industrial settlements of the Republic.

The transfer of animals to the socialist sector in 1959 has already led to shifts in the pattern of output. Meat production in the private sector, which from 1953 to 1958 had risen faster than that in the socialist sector, remained at the same level as in 1958 and is now less than half the total output, and both cow numbers and milk output in the private sector have been reduced to half of the total (see Table 11).

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[39] *Voprosy ekonomiki*, No. 8, 1959, p. 156; remuneration in kind was valued at retail prices.

[40] Its average in Kazakhstan is 10.5 roubles and in Georgia 13.60 roubles (*Pravda*, 23 and 25 December 1959).

[41] In Kazakhstan, for instance, the following prices were paid by the state in 1958 (roubles per quintal):

	To collective farms	*To state farms*
Mutton	579	321
Beef	574	417
Wool	4 213	1 821
Sunflower seeds	139	60

Source : Speech by N. Belyaev, *Pravda*, 23 December 1959.

[42] T. Zaslavskaya, *loc. cit.* The first secretary of the Tadzhik Communist Party announced at the December session of the Party Central Committee that these maxima had been reduced in his Republic, and that animals exceeding the new limit had been sold to collective and state farms (*Pravda*, 24 December 1959).

[43] *Sovetskaya Rossiya*, 13 August 1959.

2. EXTERNAL TRADE IN 1959

Changes in Balances of Trade and Payments

External trade rose steeply in 1959 in the Soviet Union and in all the eastern European countries under review except Rumania; but even there the increase seems to have been greater than in 1958 (see Table 12). In Czechoslovakia, eastern Germany, Hungary, Poland and Bulgaria, domestic resources were supplemented by a rather faster growth of commodity imports than of exports — reversing the 1958 pattern in the first four countries; and there was a complementary swing in the Soviet visible trade balance from a small deficit to a surplus.

A credit of $33 million from the Soviet Union in December 1958, and enlarged swing credits from Czechoslovakia and eastern Germany, helped to finance the Bulgarian trade deficit; and an additional $8 million from eastern Germany and $54 million from the Soviet Union have been negotiated for 1960. Credits of $100 million from the Soviet Union in November and December 1958 permitted Hungary to finance its deficit of $50 million in trade with that country in 1959, and a further $35 million has just been received from that country to help finance chemicals development and oil refining. Eastern Germany received a $28 million credit from the Soviet Union in August 1959, and an identical amount from Czechoslovakia to finance potash development. Soviet credits to other countries continue to be granted on a considerable scale. In 1958, announced new credits to the eastern European countries alone amounted to $225 million, and in 1959 the credits mentioned above totalled $117 million. In addition, some $791 million of new Soviet credits to other countries were reported in 1959: to Ethiopia 100, Finland 125, Guinea 35, India 375, Indonesia 17½ and Iraq 138.[44]

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[44] Sources for the above statements on credits granted and received are given in Appendix B. No data exist on actual drawings on such credits.

TABLE 12

The growth of external trade, 1957 to 1960 Plan

Values in millions of dollars and percentage increases in value or in volume (in italics)

	Values		Percentage increases from previous year			
	1958	1959	1957	1958	1959	1960 Plan
Albania						
Imports . . .	79	87	37.4	47.4	10.1	. .
Exports . . .	29	34	52.7	0.6	16.5	. .
Balance . . .	−50	−53				
Bulgaria						
Imports . . .	366	1 050	*32.7*	*13.4*	42	14.0
Exports . . .	374		*22.3*	*1.3*		19.0
Balance . . .	8	Deficit				
Czechoslovakia						
Imports . . .	1 357	1 602	*17.8*	*7.1*	18.1	9.1
Exports . . .	1 567	1 785	*0.6*	*12.4*	13.9	10.4
Balance . . .	210	183				
Eastern Germany						
Imports . . .	1 680	1 982	21.1	4.0	18.0	. .
Exports . . .	1 890	2 154	28.7	4.4	14.0	. .
Balance . . .	210	172				
Hungary						
Imports . . .	630	790	41.0	7.7	25.4	10
Exports . . .	680	766	−1.0	39.3	12.7	
Balance . . .	50	−24				
Poland						
Imports . . .	1 227	1 419	*16.8*	*6.7*	*15.0*	*2.0*
Exports . . .	1 059	1 146	*−9.0*	*27.5*	*11.0*	*9.0*
Balance . . .	−168	−273				
Rumania[a]						
Imports . . .	875*	936*	8*	5	7	24
Exports . . .						
Balance . . .	Surplus	Surplus				
Soviet Union						
Imports . . .	4 349	5 075	*7.1*	*19.6*	16.7	*5.5*
Exports . . .	4 290	5 425	*19.5*	*2.7*	26.2	
Balance . . .	—59	350				

Sources: Statistical yearbooks, plans and plan fulfilment reports; *Vneshna Trgovia* No. 1, 1960, p. 2; *Rudé Právo*, 12 December 1959; *Die Wirtschaft*, 28 January 1960; *Külkereskedelem*, No. 12, 1959, p. 3; *Vneshnyaya Torgovlya*, No. 12, 1959; *BIKI*, 12 December 1959; *Pravda*, 9 March 1960.

[a] Estimates of the value of Rumania foreign trade turnover differ slightly from those published in earlier SURVEYS and *Bulletins*, and are based on data published in *Voprosy ekonimiki*, No. 1, 1960, p. 14.

The Polish visible trade deficit in 1959 was financed partly from a surplus of $100 million on current invisible transactions and probably partly from the residue of the Soviet credits granted in 1957. But Polish resources were also supplemented by $62 million of new credits from the United States, and a further $41½ million was negotiated in February 1960.[45]

Although Albanian exports rose faster than imports in 1959, the visible trade deficit rose by $3 million above the peak reached in 1958; the trade deficit with the Soviet Union alone had risen from $10 million a year during 1955-1957 to $31 million by 1958.[46] The bulk of these deficits must have been financed by Soviet credits — $47 million, for use during 1958-1960, granted in 1957 together with cancellation of outstanding debts, and a long-term loan of $75 million negotiated in December 1958 and earmarked for expenditure under the 1961-1965 Plan.

The Commodity Structure

Full details of the 1959 trade patterns are not yet available for most countries, but the support given to the industrial expansion by rising imports of fuels and materials into the countries of eastern Europe has been noted in the preceding section. In Czechoslovakia, exports of raw materials and fuels levelled off as imports rose significantly (see Table 13), the largest increases in imports — 25-30 per cent over 10 months — being for crude oil, iron ore, sulphur and wool. The rise in imports in this category seems to have been fairly evenly spread over the major commodities in Poland, but more marked and more concentrated in Hungary; and in the latter country imports of pig iron and rolled steel, fertilizers and caustic soda all showed above-average increases.

Except for steel imports, which fell, remarkably large increases were registered in imports of most products for which data have been published in Bulgaria: imports of fertilizers were nearly four times as high during the first nine months of the year as in the same months of 1958, reflecting the current emphasis on agricultural development in that country; imports of cotton rose by one-third in the same period, partly to meet a rising export demand for textiles; coke imports went up by nearly one-half over the year as a whole and imports of oil fuel by one-quarter. Another country in which the partial data available suggest a particularly rapid growth of imports of fuels and raw materials is eastern Germany, with the Soviet Union as a particularly important supplier. A report

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[45] This brings the total of United States credits to Poland during the two-and-a-half years since June 1957 to nearly $300 million. A part (representing purchases by Poland of surplus agricultural products) is repayable in zlotys for agreed American expenditure in Poland. The remainder is repayable in dollars, and the agreement of June 1959 provides for a 40-year repayment period.

[46] Publication of Albanian trade statistics in the Statistical Yearbook for 1959 leaves Rumania as the only country in Europe not systematically publishing foreign trade statistics. The Albanian data show visible trade deficits of the following values (in millions of dollars) in each of the years 1955-1958: 30, 20, 24 and nearly 50.

TABLE 13

External trade of three countries by main regions and commodity groups, 1958 and 1959

Values in millions of current dollars and percentages

	Imports				Exports			
	1959		1958	1959	1959		1958	1959
	Value	Index 1958 = 100	Percentage shares		Value	Index 1958 = 100	Percentage shares	
Czechoslovakia								
Trade with:								
Eastern trading region [a]	1 153	120.6	70.7	72.2	1 250	117.2	67.8	69.8
Western trading region	444	112.0	29.3	27.8	542	107.0	32.3	30.2
World	1 597	118.1	100.0	100.0	1 792	113.9	100.0	100.0
Total for nine months	1 077	111.2	100.0	100.0	1 248	112.8	100.0	100.0
of which:								
Machinery and equipment	208	121.3	17.7	19.3	555	118.8	42.2	44.5
Fuels and materials	582	108.5	55.4	54.0	371	99.0	33.9	29.7
Food	258	114.0	23.4	24.0	71	104.3	6.1	5.7
Manufactured consumers' goods	29	83.9	3.5	2.7	251	127.5	17.8	20.1
Hungary								
Trade with:								
Soviet Union	254	131.0	30.8	32.2	203	130.0	22.9	26.5
Other eastern trading region	294	123.6	37.8	37.2	287	100.5	41.9	37.5
Western trading region	242	122.2	31.4	30.6	276	115.5	35.2	36.0
World	790	125.4	100.0	100.0	766	112.7	100.0	100.0
of which:								
Machinery and equipment	190 *	180 *	16.9	24 *	266 *	110 *	35.9	35 *
Fuels and raw materials	510 *	114 *	70.8	64 *	175 *	110 *	23.6	23 *
Food	55 *	111 *	7.9	7 *	155 *	98 *	23.0	20 *
Manufactured consumers' goods	35 *	130 *	4.4	5 *	170 *	142 *	17.5	22 *
Poland								
Trade with:								
Eastern trading region	922	129.1	58.2	65.0	676	109.0	58.6	59.0
Western trading region	497	97.1	41.8	35.0	470	107.1	41.4	41.0
World	1 419	115.7	100.0	100.0	1 146	108.2	100.0	100.0
of which:								
Machinery and equipment	391	119.2	26.7	27.5	301	106.0	26.8	26.3
Fuels and raw materials	688	104.0	53.9	48.5	562	104.3	50.8	49.0
Food	241	178.5	11.0	17.0	209	116.8	16.9	18.2
Manufactured consumers' goods	99	97.1	8.4	7.0	74	127.8	5.5	6.5

Sources: Statistical yearbooks; plan fulfilment reports; ECE, *Statistical Indicators of Short Term Economic Changes in ECE Countries*; *Figyelő*, 15 and 23 February 1960, *Népszabadság*, 17 January 1960; *Economic News Service*, Prague, No. 12, 1959.

[a] Including Yugoslavia.

on the new Soviet-east German trade agreements signed in November shows the following expected growth of imports of some important products into eastern Germany from the Soviet Union:[47]

	Imports in thousands of tons		
	1958	*1959 Expected*	*1960 Plan*
Hard coal	4 356	5 150	5 300
Iron ore	1 752	1 820	2 000
Rolled steel	791	1 006	1 140
Pig iron	521	635	635
Crude oil	1 107	1 390	1 550
Cotton	77	84.5	88
Cellulose	14	20.5	26

Imports of machinery and equipment also rose fast in the four countries for which any data are available — by some 20 per cent in the first nine months of the year in Czechoslovakia, and in the same proportion over the year as a whole in Poland, and by about 80 per cent in Hungary and 60 per cent (from countries of the eastern trade area alone) in Bulgaria. Price changes may have accounted for part of the rise; but the increase in volumes must have been considerable.

Finally, the impact of unfavourable conditions in eastern European agriculture on consumption was everywhere mitigated by larger imports of food and feeding-stuffs, which rose by nearly 80 per cent in Poland. In Czechoslovakia the rise in the last quarter of the year was particularly steep, and for 1959 as a whole imports of foodstuffs increased by 21½ per cent.

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[47] *Der Aussenhandel*, No. 23, 1959. The data for 1958 are for exports from the Soviet Union as reported in Soviet trade statistics. The apparent inconsistency between the above figures for iron ore deliveries and those quoted in Chapter III, p. 47, appears to be due to the quotation of the latter figures in terms of ferrous content.

The following figures indicate the changed balances of trade in wheat and meat:

	Thousands of tons		*Percentage increase from 1958*	
	Wheat	*Meat*	*Wheat*	*Meat*
Imports into:				
Czechoslovakia	1 140	121	18	31
Hungary	203	−118 [a]	351	(8)[a]
Poland	1 313	42	97	177
Exports from the Soviet Union to eastern Europe [b]	4 103	96	39	136

Sources : Statistical yearbooks and plan fulfilment reports.

[a] Net exports and increase in net export surplus.

[b] Data relate to agricultural year 1958/59.

Czechoslovakia and eastern Germany were also large importers of fodder; and imports into the former country rose from 262,000 tons in 1958 to 535,600 tons in the first 10 months alone of 1959.[48]

It is interesting to note also that a real expansion of imports of at least one of the more "luxury" foodstuffs seems at last to have begun in a number of countries. Imports of coffee into eastern Germany (23,000 tons) and Czechoslovakia [48a] were 43 per cent greater than in 1958; and in Hungary and Poland imports of nearly 6,000 tons and nearly 8,000 tons respectively represented almost a quadrupling of 1958 imports. Coffee imports into the Soviet Union are apparently also expected to rise fast in the near future, since an agreement with Brazil provides for purchases of 350,000 bags of coffee (about 21,000 tons) from that country in 1960 (after negligible trade in the past) rising to 600,000 by 1962.[49] However, the necessity to raise other imports seems to have left no room for larger purchases of consumers' manufactures in either Czechoslovakia or Poland, though they rose in Hungary by more than one-quarter. Soviet purchases of clothing and footwear are reported to have risen particularly fast, together with imports of various foodstuffs (rice, vegetable oil, vegetables and fruit).

Although the increases in imports into several eastern European countries were supported partly by credits, a growth of exports at well above the planned rates was achieved in most of them. The 11 per cent rise in the volume of Polish exports contrasts with a planned increase of 4 per cent; and eastern German, Czechoslovak and Hungarian export plans were also exceeded in value — by 8 per cent and 2 per cent respectively in the last two countries.

Falling export prices (of foodstuffs by 5 per cent below the 1958 level and of coal by 7 per cent) reduced the rise in Poland's total earnings to 8 per cent, mainly attributable to a large increase in the volume of food exports (in no way comparable, however, with the near doubling of imports) and to a satisfactory rise in sales of machinery and equipment. Moreover, exports of consumers' manufactures, though small, rose fast. Bulgaria and Hungary also found larger export markets for consumers' manufactures in 1959, and Bulgaria for foodstuffs also. The share of machinery and equipment in total exports was maintained in Hungary and Poland and rose in Czechoslovakia; and in the last-named country and eastern Germany the most dynamic of the major exports seem to have been in this category. Sales of motor vehicles and ships rose by 16 per cent and 25 per cent respectively in eastern Germany; and exports of lorries and motor-cars by about 60 per cent and tractors by around 25 per cent in Czechoslovakia.[50] In Hungary, the share of telecommunications equipment and precision instruments rose within the total. Exports of complete industrial plants from Poland rose by 48 per cent, ships by 5 per cent and such traditional exports as railway rolling stock and machine tools by only 1 and 2 per cent respectively.

The Regional Composition of Trade

The distribution of trade among major trading regions was little changed in Hungary in 1959; but in Czechoslovakia, eastern Germany and Poland the share of 'intra-eastern' trade rose, and this seems to have been true of Bulgaria also. The share of east-west trade in total Soviet trade appears to have fallen slightly, since trade with 'eastern' trading partners rose by 24 per cent (including a rise of more than one-third in trade with mainland China alone).

For three countries the regional distribution of imports and exports is shown in Table 13; and in eastern Germany turnover with the eastern trading area rose by 18 per cent — as compared with the overall increase of 15 per cent — intra-German trade rising by 14 per cent. The share of the Soviet Union in total turnover must have risen everywhere in eastern Europe. The only countries for which precise data are available, however, are Hungary where imports, exports and the deficit with the Soviet Union rose by more than the average rate (see Table 13), Czechoslovakia, where trade with the Soviet Union alone was 22 per cent higher in the first eleven months of the year than in the same months of 1958, and Poland, where the Soviet Union's share in total turnover rose from 26 per cent in 1958 to 29½ per cent.

The change in the 'east-west' regional pattern of Polish trade (in current prices) was due entirely to a fall in Polish imports from the western region which, together with a 7 per cent rise in export earnings,[51] improved the trade balance with that area. The rise in exports to the ‘western’ trade area naturally involved a considerable change in their commodity pattern, since the value and volume of coal exports fell sharply as a result of the depressed state of the western European coal market. The share of coal in the total value of ‘western’ exports in fact fell to 17 per cent, from 32 per cent in 1958. The Scandinavian countries took rather more than before, but the halving of total coal imports into the countries of the European Economic Community reduced Polish sales to that area. This loss was made good mainly by increased sales of foodstuffs, which rose from some 25-30 per cent of the total in past years to 46 per cent of all Polish exports to the ‘western’ trade area in 1959. Trade with under-developed ‘western’ countries does not seem to have made any contribution to the rather satisfactory overall level and balance of ‘western’ trade: the share of such countries in total Polish exports fell, though their share in imports into Poland rose somewhat — from about 5 per cent to about 7 per cent; but it is hoped that new long-term trade agreements recently concluded with India and Ceylon will help to promote a further expansion in both directions.

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[48] *Economic News Service*, Prague, January 1960.

[48a] Based on nine months' figures.

[49] *Soviet News*, 11 December 1959, gives the values as $17 million in 1960 rising to $29 million by 1962.

[50] Based on nine months' figures.

[51] The fall in export prices particularly affected Poland's exports to 'western' markets, so that the increase in volume was much greater.

3. The 1959 Investment Drive

The Level of Investment

During 1956 or 1957 the distribution of resources was somewhat modified throughout eastern Europe and the Soviet Union in favour of faster increases in both consumption and stock-building, compensated by slower growth — or even a fall — of fixed investment and often by borrowing from abroad. In 1958 the rate of growth of fixed investment rose quite significantly in all countries except Czechoslovakia and the Soviet Union;[52] but the change in structure, which had begun even before 1956 in some countries, continued. This has generally tended to raise the share of agriculture, consumer-goods industries and dwelling construction in the total, as well as giving progressively more weight to completion of projects or minor extensions of existing capacity — and, most recently, to adequate maintenance and renovation of equipment — as compared with large new ventures.

The initial plans for 1959 provided for an acceleration of investment activity everywhere except in Hungary, where the 1958 rate of growth was intended to be maintained; but in Poland the planned speeding-up of fixed investment was slight and at least partly offset by a planned cut of 29 per cent in investment in stocks (see Table 14). The share of total resources absorbed by investment was planned to rise everywhere, though less in Rumania than in other countries.

In the event, fixed investment in 1959 exceeded the levels planned in Czechoslovakia, Hungary, Poland and Rumania; and in the five countries which have published long-term plans for the years up to 1965 the rate of expansion was faster than foreseen in those plans, even in eastern Germany and the Soviet Union where the annual investment plan was not fulfilled.[53] In Bulgaria, Czechoslovakia and Rumania fixed investment seems to have absorbed a larger share of resources than had originally been expected; but comparable data on total accumulation and national income are not yet available. However, in Hungary the excess of gross investment over the planned level was partly matched by a faster growth of national income than had been foreseen and, possibly, by smaller investment in stocks. In Poland net domestic product (shown in Table 14) rose rather less than planned, but domestically disposable national income exceeded the expected level. The share of total accumulation in national income thus changed little in either country:

	Percentage shares		
	1958	*1959*	*1960 Plan*
Hungary (shares in net domestic product)			
Accumulation	21	22	25
Consumption	79	78	75
Poland (shares in net national income for distribution)			
Net fixed investment	16	17	18
Investment in stocks	7	6	6

Sources: *Népszabadság*, 30 January 1960; Polish statistical yearbook for 1959, plan and plan fulfilment report.

In Albania national income rose according to expectations, but the volume of investment was below plan. This seems to have been necessitated by a shift in the composition of imports away from capital equipment towards consumers’ goods to compensate for the poor 1958 harvest. The shortfall on this investment plan was entirely due to smaller installations of equipment, and the construction plan was exceeded.

In most of the countries under review the acceleration of investment activity seems to have been achieved without much difficulty — at least in the earlier months of the year. Stocks of building materials and labour supplies at the beginning of 1959 were sufficient

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[52] Whereas the rate of growth during 1957-1958 in Czechoslovakia was less than in 1956 it was maintained at a rather steady rate, always above 10 per cent, in the Soviet Union.

[53] See Chapter III, Table 1 and section 3.

TABLE 14

Rates of growth of national income and investment outlays, 1957 to 1960 Plan

Percentage increases from previous year

Country	1957 Actual	1958 Actual	1959		1960 Plan
			Plan	Actual	
Albania					
National income	14	6	19	ca. 20 *	18
State gross fixed investment	29	50	25	14	2
Bulgaria					
National income	12	7	34	20	22
State gross fixed investment	−6	23 *	36 *	32	19
Czechoslovakia					
National income	7	8	6	5	6
Gross fixed investment	10	9	12½	18½	12
Eastern Germany					
National income	7	11	..	..	..
Gross fixed investment	9	17	19½	14	16
Hungary					
National income	21	6	6 [a]	8	9
State gross fixed investment [b]	−4	14	13 [a]	20	16
Poland					
National income	9	5	6	5	6
Gross fixed investment	7	11	12	14	6
Net fixed investment	11	10	10	15	6
Investment in stocks	55	−8	−29	−8	7
Rumania					
National income	16	5	13	13	13
Gross fixed investment in the socialist sector	−9	11	15	17	34
Soviet Union					
National income	6	9	8	8	9
State investment under central plan	11	8	15½	10	13½
Investment by state and co-operatives [c]	13	13½	..	12	..

Sources: Statistical yearbooks, plans and plan fulfilment reports; *Rabotnichesko delo*, 13 March and 22 December 1959; *Einheit*, No. 11, 1959.

NOTE. — Investment data differ from those previously published in the following respects: the Albanian series are at 1958 prices (formerly at 1955 prices); the Soviet series include drafting and survey work (formerly excluded); the Czechoslovak data are in 1959 prices.

[a] Original plan. The revised plan forsaw an 8 per cent rise of national income.

[b] Data are based on old prices, regarded as unchanged accounting prices, but nevertheless contain some elements of price increase — e.g. a change in the accounting price of imported machinery raised the nominal 'volume' of investment by 6 per cent.

[c] Excluding collective farms.

in most countries to allow construction enterprises to take full advantage of the very good weather conditions; and the volume of building and installation work in the first half of the year was 15 or more per cent higher than in the same months of 1958 in the Soviet Union and Czechoslovakia and 25-32 per cent greater in the other countries of eastern Europe, Rumania apart.[54] Over the year as a whole the rise in construction was rather less in eastern Germany and Poland, shortages of building materials having developed in the later months in both these countries and Bulgaria (and labour scarcity also in eastern Germany); but the rate of the first six months was maintained in Czechoslovakia, Hungary[55] and the Soviet Union (see Table 15). Decentralization of

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[54] See the *Bulletin*, Vol. 11, No. 3, p. 33.

[55] In the co-operative sector employing 7 per cent of all building workers in 1958 (and excluded from the data in Table 15) employment rose by 18 per cent from 1958 to 1959, but in the private sector (18 per cent of total employment in construction) there was no increase.

TABLE 15

Gross output of construction and construction-materials industries in eastern Europe and the Soviet Union

Percentage change over previous year

Country	Construction				Building-materials industry			
	1958 Actual	1959 Plan	1959 Actual	1960 Plan	1958 Actual	1959 Plan	1959 Actual	1960 Plan
Albania [a]	26.5	24.5	27	−6.3	9.7	..	..	..
Bulgaria [a]	39	..	14 [b]	..	19	30	33	35
Czechoslovakia	8.8	12.6	15	11.1	17.0	11.7	15	13.3
Eastern Germany	5.1	15½	19	..	12.0	17.9	.. [c]	..
Hungary	7	24	27	8½	15	6	19	8
Poland	13	12 *	14 *	5	13	..	14	8
Rumania [a]	4	..	5 [b]	..	6	..	4 [b]	..
Soviet Union [a]	16.6	..	16 [d]	..	25	..	22	..

Sources: Statistical yearbooks, bulletins, plans and plan fulfilment reports; Bulletin of the Albanian Telegraph Agency, Paris, for January-February and for March 1960; *Népszabadság*, 12 February 1960.

NOTE.—Coverage of construction output is indicated in footnotes to Table 3.

[a] Including assembly work.

[b] January-September.

[c] Below the plan.

[d] Work executed by contractors only (corresponding figure for 1958 is 16.9) which represented 84 per cent of all building and installation work in 1958.

investment decisions — except in Hungary — and management reforms in building enterprises probably also contributed to the rapid progress in construction; and very large imports of machinery assisted the rise in industrial investment in Hungary and Bulgaria (see section 2 above).

On the demand side, rapidly growing housebuilding — financed from private, co-operative and enterprise funds as well as directly by the state — tended to raise the share of construction in total investment activity. The greater freedom, and encouragement, given to enterprises to undertake partial extensions, modernization of equipment and capital repairs tended to swell total investment demand above planned levels in several countries, especially Czechoslovakia and Poland. By the end of the year, however, the danger of over-strain of investment resources had become apparent in some countries. Steps were taken to restrain the further growth of expenditures in Poland (see below), and there seems to have been a more widespread tendency to tighten control — at least temporarily — over decentralized investment.

The Investment Structure

The steepest rise in investment in 1959 almost certainly occurred in Bulgaria, where increases were reported of one-third in all state investment and nearly one-half in centrally planned investment alone. Within this latter category industry took a rather smaller share than in 1958; and the resources available for industry seem to have been concentrated particularly on the food-processing and metallurgical branches (see Table 16). Investment in agriculture rose considerably faster than total outlays; and the results of the widespread mobilization of peasants for work on irrigation and other land melioration schemes are probably not fully reflected in these data. Housing construction financed from centrally planned funds and from state credit to co-operatives and individuals nearly quadrupled in terms of living space, 925,000 cubic metres being constructed in 1959.

The rise of about 60 per cent in imports of machinery and equipment into Bulgaria between 1958 and 1959, and the 50 per cent increase reported in domestic output of the metal-using industries, suggest very large investments in equipment in 1959. Difficulties in construction became acute in the second half of the year, however, leading to a special enquiry into the causes of delays. This reported shortages of cement, some types of bricks,[56] insulating materials, timber and constructional steel; it also found scarcities of qualified manpower on construction sites and a bottleneck in design offices — all rendered the more hampering by a dispersion of resources over an excessive number of projects.[57]

Rumania also reports a large rise in investment outlays — to be raised by another 34 per cent in 1960 — but very few details of their composition. The share of agriculture rose in 1959 and dwelling construction financed by state and co-operative funds is reported to have increased by one-quarter. This is only a small part of total dwelling construction but private housebuilding certainly also rose.

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[56] Production of bricks and cement has recently risen only slowly: cement by 5.8, 2.4 and 6.1 per cent in each of the three years 1956 to 1958, and bricks by only 4 per cent between 1956 and 1958; and the rapid expansion of 1959 seems to have been insufficient to keep pace with the rise in demand.

[57] *Rabotnichesko Delo*, 27-29 October 1959.

TABLE 16

Sector distribution of gross fixed investment in seven countries, 1958 to 1960 Plan

Country and sector	Percentage shares in 1958	1959 Actual	1960 Plan
		Percentage increases from previous year	
Albania			
State investment	100	14	2
Industry	36	96	..
Agriculture	18	18	..
Transport and communications	16	12	..
Dwellings	9	17	..
Health	5	8	..
Education		27	..
Bulgaria			
Centrally planned investment	100	44	24
Industry	62	36	20
of which:			
Coal and electric power	18	9	53
Engineering	6	..	58 [a]
Building materials	5	12	16
Food processing	4	298	−21
Metallurgy and metal ore	9	96	−22
Chemicals	4	−10	22
Textiles	3	41	38
Agriculture and forestry	10	81	62
Transport and communications	12	17	33
Housing, social welfare	12	..	79 [a]
Eastern Germany	[b]		
Total investment	100	14	16
Industry	40 *	23	..
of which:			
Chemicals	7	..	22
Textiles and clothing	..	..	15
Building enterprises	4	..	6
Agriculture and forestry	11	38	7
Housing	16	..	..
Hungary			
State investment	100	20	16
Chemicals	3	200	28
Agriculture	15	77	27
Poland			
Total investment	100	14	6
Industry	38	15	5
Agriculture and forestry	13	6	25
Transport and communications	8	25	5
Trade	3	34	−10
Local government	4	33	−8
Housing	22	6	1
Social welfare	7	21	21
Rumania			
Total investment	100	22	30
Agriculture	17	37	26
Soviet Union			*Increase over 1959*
Centrally planned state investment	..	10	11 [c]
Chemicals	..	59	30
Metallurgy	..	22	20
Oil and gas	..	14	15
Engineering	..	39	30
Electric power	..	4	..
Timber, paper and wood-working	..	17	..
Light and food industries	..	34	14
Railway and transport	..	12	..

Notes to Table 16

Sources: Statistical yearbooks, plans and plan fulfilment reports; *Planovoe khozyaistvo,* No. 12, 1959, p. 8; *Einheit* No. 11, 1959; *Deutsche Finanzwirtschaft* No. 16, 1959; *Neues Deutschland*, 26 January 1960; *Népszabadság*, 5, 29 and 30 January 1960; direct communication from the Bulgarian Government. Albanian sector data comprise only outlays by ministries.

[a] Percentage increase over 1958.

[b] Planned structure of investment in 1960.

[c] The planned increase over the actual 1959 level is 13½ per cent.

Increased attention is now being given to the efficiency of use of investment resources in Rumania, as elsewhere. It seems to be considered that the increased freedom and encouragement given to enterprises since 1954 to undertake capital repairs and modernization has now reached the point at which it encourages excessive expenditures and misuse of capacities, and that a more careful control of repair work — including its concentration in specialized enterprises — is required, in order to reduce the cost of repairs and free machine tools and other resources for new investment.[58] Efforts are also being made to reduce the share of construction in total investment by simplifying unduly extravagant designs, by installing equipment in the open where possible,[59] and by concentrating projects on larger work sites where possibilities exist of common use of some services. The hoped-for savings are indicated by the following figures:

Percentage share of construction in total investmeut

	Present	*Plan for "immediate future"*
Chemicals industry	60	35-40
Food processing	51	38-42
Electric power	66	50-55
Engineering	38	20-25

Source: *Scinteia*, 19 December 1959.

Moreover, it is hoped to speed up investment completions by concentrating building resources, at present — as in Bulgaria — spread too thinly over an excessive number of separate sites and projects.

In Albania the rate of growth of investment tends to fluctuate rather widely from year to year, with capital-goods imports; in 1959 equipment installed was less than in the previous year — when twice as much was put in as in 1957:

	1955	*1956*	*1957*	*1958*	*1959*
	Millions of leks				
Imports of equipment:					
listed in units (unit)	1 521	695	1 176	2 059	..
listed in value	331	395	501	856	..
Value of machinery installed	1 282	1 487	2 129	4 023	3 750
Value of building work	3 158	3 021	3 732	4 722	6 000
Value of other investment outlays	719	1 046	1 314	2 016	2 460

Sources: 1959 Statistical Yearbook; *Ekonomia populloreׅ*, No. 6, 1959, p. 101.

NOTE. — Imports do not cover all equipment, but only those items listed (5 groups of equipment and 10 types of machine); they are at current prices. Other data are at 1958 prices.

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[58] *Scînteia*, 6 December 1959 and 21 and 24 January 1960.

[59] For example, boilers for two thermo-electric power stations and some equipment in the oil industry and chemical plants (*ibid.* 19 and 30 December 1959).

The volume of building work nevertheless continued its rapid rise — the most dynamic in Europe — partly because of increasing concentration upon agriculture and social capital, and particularly upon projects which require little equipment, such as land melioration, dwellings, schools and hospitals (see Table 16).

The Hungarian investment drive is only less intense than those of Bulgaria and Rumania; but (as noted above) the 20 per cent rise in investment in 1959 was achieved without any significant reduction of the share of consumption in national income. The level of investment exceeded the original plan by a large margin, though it fell slightly short of the revised targets established during the year, and a further 14 per cent rise is planned for 1960. The share of machinery in the total (25 per cent in 1958 at 1954 prices) is reported to have risen, in accordance with the plan, assisted by an increase of nearly 80 per cent (by value) in the 1958 level of imports of equipment. The relatively small 1958 volume of investment in the chemicals industry was trebled in 1959;[60] and, even more than in other countries, agriculture considerably increased its share of the total.

The surpassing of the 1959 investment targets in Czechoslovakia apparently caused little disturbance to that economy. However, centrally financed investment fell 5 per cent short of the planned level, whereas decentralized investment was 7 per cent higher than expected. In 1959 decentralized investment represented about 60 per cent of the total; but it has been suggested that this sector has now absorbed an excessive share of resources, and its share is to be cut back to 52 per cent of the total during 1961-1965. Few details of the structure of outlays in 1959 are yet available. However, the share of machinery in total state investment fell slightly from 45 per cent in 1958 to 43 per cent; dwelling construction apparently rose rapidly, completions being 23 per cent greater than in 1958 and well above the plan target, and the total construction plan was exceeded by 2 per cent. Investment in co-operative farms rose by 30 per cent.

Investment costs in Czechoslovakia are reported to have fallen, according to plan. The share of decentralized investment in the total is probably higher in Czechoslovakia than in any other eastern European country; and strong material incentives for cost reduction were introduced — both for investors and for building enterprises — in the course of 1959. Considerable premia are earned if final costs are lower than foreseen in the first basic plans of a project or if the period of construction is shorter than originally planned. Premia paid to investors may be as much as 10 per cent of the savings achieved and those to constructors up to 50 per cent of the savings; but the total premia received may not exceed 4 per cent of the wage fund in any year. About 20 per cent of any premia are paid directly to persons contributing to the savings obtained, and the rest to enterprise funds to be used largely for construction of dwellings.[61]

In Poland, exceptionally good progress in the early part of the year, as in Hungary, was followed by increases in the plan targets for investment in the socialized economy.[62] Nevertheless, the largest increases in investment outlays were registered, not in industry, but in the trade, local government, transport and social welfare sectors (see Table 16). The greatest disparity between planned and actual outlays was in trade and local government investment, originally intended to remain at the 1958 level since the actual increase in 1958 had already been considerable;[63] and investment in social capital and transportation also exceeded the plans. Investment in agriculture lagged far behind the general rate of growth, and it is hoped that the new measures for financing investment in this sector through the " agricultural circles " (see section 1 (b) above) will succeed in raising outlays by 25 per cent in 1960.

In general, decentralized investment rose particularly fast in Poland. Excluding co-operative farms and co-operative housing construction, it exceeded the plan by 19 per cent whereas total investment was only some 6 per cent above plan.[64]

The Polish investment ' boom ' created a strong demand for labour, both skilled and unskilled. During the first half of the year employment in socialized building and construction enterprises rose to 719,000, or 30,000 more than originally foreseen for the year as a whole and 11 per cent above the average number employed in 1958.[65] Unskilled labour, coming in the past straight from agriculture, was difficult to find; and enterprises competed for labour by offering higher wages. The increase in average wages was much larger than that of productivity; and in the second quarter of the year, wages were 13.4 per cent higher than in the same quarter of 1958 and productivity of labour up by 6.5 per cent. Costs rose and scarcities of building materials soon developed; and, at the end of July, the Government intervened with measures to limit both new construction starts and even the rate of increase of expenditure on existing projects. In September ministries and local governments were ordered to cut employment in building enterprises in proportion to available materials and, temporarily, to eliminate some investment projects from their programmes. These measures slowed down investment expenditure in the third quarter of the year; but it was still 19 per cent above the level of the third quarter of 1958.[66] For 1959 as a whole, investment increased above that of 1958 by 14 per cent in constant prices and 19 per cent in current prices; but in the last quarter expenditure was only 1.6 per cent higher than in the same months of 1958.

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[60] This should speed up the completion of a number of large projects now in progress. A thermal cracking plant imported from the Soviet Union, and a lubricating oil plant of 50,000 tons, are scheduled for completion in 1961. Work continues on a superphosphate plant of 200,000 tons capacity in the Szolnok (Tisa) Chemical Combine and on a petroleum refinery of 1 million tons capacity at Szöny (Danube) both for completion after 1961 (*Népszabadság*, 5 January 1960).

[61] *Úředni List*, 22 September 1959.

[62] *Zycie Gospodarcze*, No. 43, 1959.

[63] 32 per cent for trade and 11 per cent for local government.

[64] The Polish investment expansion in 1959 may, however, have been slightly overstated as a result of a change in accounting practice as from 1 January. Investment in machinery since that date has been accounted at the moment of receiving the delivery invoice, whereas it was previously accounted only on installation of the equipment. (*Zycie Gospodarcze*, No. 43, 1959, p. 5).

[65] *Trybuna Ludu*, 3 December 1959.

Eastern Germany and the Soviet Union are the only two countries — apart from Bulgaria — where the original investment plans were not exceeded. In the former country agriculture appears to have taken a very considerably increased share of total investment resources, and industrial investment also rose faster than total outlays (see Table 16). Shortages of manpower and materials are reported to have hampered construction, though the total for the year was slightly above the planned level, and completions and reconversions of dwellings reached a total of only 79,000 in the year against 91,500 planned.

In the Soviet Union, although the state investment plan was not fulfilled, state and co-operative investment (excluding investment in collective farms) together rose by 12 per cent, rural housebuilding by nearly one-fifth and state and other urban dwelling construction by 18 per cent. The distribution of state investment in Soviet industry in 1959 already reflects the balance of the new long-term plan, and differs very noticeably from the pattern of growth of output in that year. The fastest rise in investment, by 59 per cent, was in the chemicals branch which had also shown an above-average increase in 1958. Of the two branches showing the next largest increases — engineering and the light and food industries — the former had actually received a reduced allocation of investment funds in 1958, compensated by a 39 per cent rise last year; but the rise of one-third in investment in the light and food industries represents an above-average increase for the second year in succession.

4. CONSUMERS' INCOMES AND LIVING STANDARDS

Despite the large increases in investment just described, the year 1959 was significantly better than 1958 for the average consumer in eastern Europe and the Soviet Union. His money income increased, generally by about the same margin as in 1958; and this was accompanied in most countries by some reduction in his cost of living, and everywhere by a more than proportionate improvement in supplies of consumers' goods, particularly durable goods. Moreover, the extension of state welfare activities and improvements in housing have generally continued somewhat faster than the growth of his money income.

This generalization of course conceals some variations among and within countries, as well as some fluctuations during the year; but the principal features of current income policies seem to be common to all the countries of the area. First, the general tendency is more or less to maintain the average level of retail prices, using selective price cuts mainly as a means of influencing the pattern of consumers' demand. Secondly the authorities everywhere appear to be endeavouring to improve the balance in the consumers' market. This is reflected in a cautious attitude towards the expansion of personal money incomes combined with considerable stress on the quantitative improvement of supplies. On the whole, deliberate increases of wages and salaries during the last few years have been virtually confined to those resulting from adjustments of wage differentials, including upward revision of statutory minimum wages, though it was not always possible to hold wage increases within the desired limits. Increases in farm incomes have been considerable in the recent past, but policy has now generally shifted in the direction of stabilization — apart from increases resulting from higher productivity in this sector; and peasants' incomes were already stabilized, or actually declined, in Hungary and Poland in 1959.

Consumers' Incomes in 1959

However, actual developments during 1959 have not everywhere conformed to plans. In Poland nominal wages rose by 7½ per cent, instead of the 4 per cent provided for in the annual plan, and the total wage bill by just over 10 per cent; and increases of 7 per cent in family-allowance payments, of 11 per cent in sickness benefits and of 32 per cent in average pension income added still more to the total growth of incomes of the non-farm population. The excess rise in wages reflected both a faster than expected increase of employment, particularly in building, and relaxations of wage discipline. In the first half of the year, the total wage bill rose 12½ per cent above the corresponding 1958 level[67] — whereas for the year

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[66] *Gospodarka Planowa*, No. 12, 1959, p. 5.

[67] *Trybuna Ludu*, 25 September 1959.

TABLE 17

Per capita nominal and real wages,[a] 1957 to 1960 Plan

Percentage change over preceding year

Country	Nominal wages				Cost of living			Real wages			
	1957	1958	1959		1957	1958	1959	1957	1958	1959	1960 Plan
			Plan	Actual							
Albania	..	1	..	2	..	−5	−6	4	6	8	6
Bulgaria	4.8	2.7	..	2.6	[b]	—	−1.5	3.6	2.3	4.1	18
Czechoslovakia	2.0	2.1	..	2.2	−1.9	—	−2.7	4.0	2.1	5	0.8
Eastern Germany	3.8	3.4	..	7.5 [c]	−0.7	−1.2	−2	4.5	4.7	9.7 [c]	..
Hungary	20.9	2.4	3.2	3.1 *	2.4	0.3	−1.0 *	18.0	2.1	4.1	2.1
Poland	15.1	7.5	4.1	8.1	6.9	3.0	3.3	7.7	4.4	4.6	0.7
Rumania	10	7	..	10	..	..	..	..	..	..	..
Soviet Union	..	..	..	..	— [d]	1.4 [d]	−1.8 [d]	7 [e]	2 [e]	..	5 [e] [f]

Sources : Statistical yearbooks and bulletins, plans and plan fulfilment reports, *A nemzeti jövedelem es a lalossag jövedelme 1958-ban*, p. 33; *Rudé Právo*, 24 December 1959; *Rabotnichesko Delo*, 22 December 1959.

[a] In the socialized sector except where otherwise indicated.

[b] Prices were reported unchanged, but this appears inconsistent with data on changes in money and real wages.

[c] Expected result for workers in socialized industry only (*Neues Deutschland*, 17 December 1959) about 60 per cent of all industrial workers in 1959.

[d] Cost-of-living data cover retail prices only: percentage price changes on farm markets in the three years were −3, +4, −6.

[e] " Real income " (money rewards and state-provided services).

[f] Total working population.

as a whole a 5 per cent increase had been planned — and there was no change in the official price level.[68] This, together with some simultaneous decline in supplies of meat, led to the meat crisis reported in the last issue of the *Bulletin* [69] and to the consequent steep increases (25 per cent on average) in the prices of meat and meat products decreed by the Government in October. At the same time (as mentioned in section 3 above) steps were taken to restrain the rise of investment activity which had contributed to the rapid increase in demand for labour. According to the Polish plan fulfilment report, real wages declined in the fourth quarter of 1959. In contrast with the developments in industry, peasants' real incomes from agricultural activities in 1959 were reported " to have remained at the level of the preceding year ".

The only wage data for 1959 yet published in eastern Germany cover workers in socialized industry — about 60 per cent of all industrial workers. However, the 8 per cent rise reported in the total industrial wage bill suggests that the average per capita rise cannot have been much less than the 7½ per cent reported for socialized industry alone. Retail prices fell slightly between 1958 and 1959 so that the rise in real wages in eastern Germany seems to have been the highest in any country for which data are yet available (see Table 17).[70] Czechoslovakia, on the other hand reported the slowest growth of nominal wages. The per capita wage increase in industry alone was nearly 2 per cent, while average wages in construction rose by 3½ per cent; but in Czechoslovakia, as in eastern Germany, price cuts introduced during 1959 resulted in a drop of around 2 points in the average cost-of-living index for the year so that real per capita wages went up in Czechoslovakia by nearly 5 per cent. Non-wage benefits contributed in 1959 somewhat more to general living standards in Czechoslovakia than in eastern Germany, family allowances rising by 14.7 per cent and average pensions by 8.8 per cent.

Peasants' incomes in Czechoslovakia seem to have increased in parallel with real wages outside agriculture.[71] The significant increase in prices for state purchases from collective farms announced for 1960, combined with the new tax system described in section 1 (b) above, is not expected greatly to affect the share of the agricultural population in the total national consumption fund; it may, however, encourage the desired shift of peasants' consumption from agricultural produce towards industrial goods.

In Hungary, substantial salary increases were granted at the beginning of the year to the personnel of the health and education services, whereas the 3 per cent increase in money earnings of industrial workers was chiefly the concomitant of productivity improvements; and about 1 per cent of the reported 4 per cent increase in per capita real wages was due to price cuts announced in January 1959. Increases in pensions and family allowances added about another 2 per cent to aggregate money incomes;[72] but about half of the 12 per cent rise in aggregate state-financed personal incomes came from an expansion of wage- and salary-earning employment.

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[68] Certain price adjustments made in June were compensatory and did not affect the level of the cost-of-living index.

[69] Vol. 11, No. 3, pp. 49-50.

[70] Within east German industry, wages of chemical workers were 13 per cent higher in 1959 than in 1958, those in the textiles, clothing and leather branches were higher by 15 per cent, and those in the food industry by 11 per cent. Some new wage increases, particularly in private industry, became effective on 1 October 1959.

[71] This is indicated by the comparison of changes in real wages, real incomes of the population and the consumption fund, all of which increased in 1959 by about the same margin of 4-5 per cent.

Total state payments for procurements from, and advances to, farmers in Hungary declined by about 4 per cent in 1959; but the trend in per capita real incomes of peasants, which declined in 1958 by 6.4 per cent, is not clear. However, the rise in deliveries from farms seems likely to have left little room for increases in self-consumption by farm households and total real income probably fell in 1959 also, although the impact on per capita income was probably lessened by a decrease in the farm population.

The rise in real wages outside agriculture in Bulgaria was similar — just over 4 per cent — to that registered in most other countries of the area, but greater than in 1958; and the purchasing power of the population as a whole was reported to have increased by 8.2 per cent,[73] indicating a more than proportionate rise of farmers' incomes — a conclusion supported by the increase of around 15 per cent in agricultural output. But far greater improvements in living standards are foreseen for 1960. In that year the price cuts introduced at the end of October 1959 will have their full impact,[74] and three rounds of wage increases are planned, the purpose of which is not only to raise the general level but also to adjust wage differentials to promote the desirable pattern of labour recruitment. The increases will come into effect at different dates for different banches — 1 April, 1 July and 1 October. The range of increases planned is as follows:

6- 7 per cent — Glass and porcelain; rubber; furniture; engineering §; leather and footwear; loading services.
9-10 per cent — Paper §; timber processing; clothing; justice.
11-12 per cent — Metallurgy §; timber cutting §; chemicals §; textiles §; printing §;
14-15 per cent — Construction *; food processing §; teachers; designers §.
16-17 per cent — Mining *; railway and road transport *; cement §; electricity §; communal economy.
19-21 per cent — Managers and technicians in local and co-operative industries; health services §; communications.
25-28 per cent — Irrigation maintenance *; river, sea and air transport §.

Source: Rabotnichesko Delo, 29 December 1959. Increases to take effect 1 April 1960 are marked *, those effective 1 July §; the remainder will take effect 1 October, when minimum wages will also be raised.

These increases are expected to raise average per capita money wages 18 per cent above the 1959 level in 1960 while the consumption fund increases by 12½ per cent, implying a change in the distribution of incomes away from peasants and in favour of other occupations. The plan is extremely ambitious and presupposes an excellent 1960 harvest if supplies are to be adequate to meet the implied rise in consumers' demand without either price increases or shop shortages. It is significant that most of the wage adjustments are timed for July or October, when the harvest will be known.

No data have yet been published on the 1959 development of real wages in Rumania and the Soviet Union. In the latter country per capita real incomes (inclusive of the imputed value of state-provided services) of wage-earners increased in 1958 by only 2 per cent, whereas incomes of peasants increased by as much as 8 per cent. On 1 July 1959 price cuts were announced, affecting chiefly some durable consumers' goods, but also wine and fruit, and stated to be equivalent to 6 billion roubles or around 1 per cent of the value of retail sales in that year; and average prices on collective-farm markets in the towns were reported to have declined in 1959 by 6 per cent below the 1958 level. The price reductions so far announced for 1960[76] reflect demand and supply conditions;[77] and on 1 March 1960, the following percentage price cuts will take effect:

Tulle and curtain fabrics	23
Silver and Polar fox furs	20
Natural and certain artificial silk fabrics	15
Haberdashery	5
Cocoa- and coffee-flavoured condensed milk	30
Jam	18
Electric sewing machines	20
Certain cameras	30
Certain radio sets and sporting guns	25
" Vyatka " motor scooters	18
Fountain pens and propelling pencils	20
Razor blades	30
Accordeons	20

These reductions are estimated as the equivalent of 2.5 billion roubles of annual expenditure, which represents about 0.3 per cent of the planned 1960 turnover in retail trade (760 billion roubles).

It is now considered that peasants' incomes have tended to rise too fast during the last few years in the Soviet Union, in relation both to earnings of wage-earners outside agriculture and to those of workers on state farms; and policy is now directed towards restraining the overall growth of farm incomes, except where these are justified by rising productivity, and to lessening inter-farm differentials (see section 1 (b) above).

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[72] On income and price changes announced at the beginning of the year see the *Economic Bulletin for Europe*, Vol. 11, No. 1, pp. 16-18.

[73] *Rabotnichesko Delo*, 27 December 1959.

[74] The cuts affected mainly woollen textiles, and their range varied from 7 to 50 per cent. Total benefits to the consumer on an annual basis were estimated at 200 million leva or around 1 per cent of the consumption fund.

[76] *Pravda*, 1 March 1960.

[77] Silk fabric sales declined by 3 per cent in 1959 and the 15 per cent price cut now announced is a response to slack demand for these goods; output of all durable goods rose substantially in 1959 and costs can be assumed to have declined.

TABLE 18

Changes in the volume of turnover in retail trade (including public catering), 1957 to 1960 Plan

Percentage change over preceding year

Country	All commodities					Food				Non-food			
	1957	1958	1959		1960	1957	1958	1959		1957	1958	1959	
	Actual		Plan	Actual	Plan	Actual		Plan	Actual	Actual		Plan	Actual
Albania [a]	22.4	31.1	..	13.1	..	18.7	34.3	..	12.4	28.9	26.2	..	14.5
Bulgaria	9.2	10.7	25.8	18.9	14.2	6.4	7.3	..	..	11.7	13.6	..	..
Czechoslovakia	9.4	1.1	5.0	7.2	2.7	5.8	2.6	..	4.2	13.6	−0.8	..	9.3
Eastern Germany	7.2	10.9	11.3	12.2	13.8	4.9 [a]	10.0 [a]	8	10.0 [a]	9.2 [a]	9.0 [a]	15	10.2 [a]
Hungary	6.4	5.3	6.4	11.7 *	4.4	3.1	5.3	3.3	10 *	103.	5.3	9.4 *[b]	13 *
Poland	14.5	5.3	9.1	9	4.3	14.2	8.2	7.7	..	14.7	2.9	10.4	..
Rumania	5.3	−1.7	9.5 [a]	5	..	6.2 [c]	—[c]	..	..	4.7	−0.9	..	..
Soviet Union	14.1	6.2	10	8	7	12.0	5.0	..	..	16.4	7.0	..	..

Sources : Statistical yearbooks and bulletins, plans and plan fulfilment reports; *Rudé Právo*, 18 February and 4 March 1960; *Hospodářské Noviny*, 8 January 1960; *Der Handel*, No. 10, 1959; *Népzabadság*, 23 January 1959.

NOTE. — Figures in this table refer to socialized trade in all countries except Bulgaria and eastern Germany, where private trade is included. Soviet data for food and non-food sales (but not for total trade) include commission sales by co-operative shops.

[a] At current prices.

[b] At current prices, sales of clothing rose by 12.9 per cent and sales of other manufactured consumers' goods by 15.5 per cent, but some price increases in the latter group may have reduced the rise in terms of volume.

[c] Excluding public catering, which increased by 9.4 per cent in 1957 and declined by 12.7 per cent in 1958.

In Albania real wages rose by 8 per cent during 1959, mainly as a result of a 6 per cent cut in retail prices in April, and are scheduled to rise by 6 per cent in 1960. Peasants' incomes in 1958 were only 11 per cent above the 1955 level, due to the virtual stagnation of farm output during this period, and for 1959 no data have been published. However, incomes must have risen substantially; and, on the basis of plans which assume another good crop in 1960, the Government has stated that peasants' incomes by the end of that year should be 40 per cent above the 1955 level.

Supplies of Consumers' Goods

Retail trade turnover increased considerably in all the countries of eastern Europe in 1959; and everywhere the rate of increase was not only above that of 1958 but also significantly above the rate of expansion of real incomes (see Table 18). This seems to be true also of the Soviet Union despite the underfulfilment of the 1959 turnover plan by 1.7 per cent.

A number of factors has contributed to these improvements and their incidence varied from country to country, but at least two underlying tendencies were common to all countries: the determination of the planners to improve the quantitative and qualitative balance of supply and demand, and the successful expansion of industrial production of consumers' goods, particularly durable goods. The availability of foodstuffs was more influenced by the vagaries of agricultural output. Output in the food-processing industries rose more slowly than in 1958 in Czechoslovakia, eastern Germany, Poland and — probably — Rumania,[78] but faster in Albania, Hungary and the Soviet Union; and in some instances the failures of domestic agriculture were compensated by increased imports of foodstuffs (see section 2 above).[79] Nevertheless, supplies of meat and butter through the socialized trade network declined somewhat in Poland, though a part of this decline was probably offset by increased direct supplies to the consumer, at higher free market prices.

The data in Tables 18 and 19 relate to state and co-operative trade, except in Bulgaria and eastern Germany, so that they exaggerate somewhat the expansion of supplies, particularly of foodstuffs, outside these two countries. Large-scale absorption of individual farms into co-operatives in Czechoslovakia and Hungary during the year resulted in some re-channelling of previous direct transactions between the producer and the consumer into the state and co-operative trading network,[81] and the increasing monetization of collective farmers' incomes, particularly in the Soviet Union, has certainly had a similar effect. This reservation does not, however, apply to eastern Germany, where for the second consecutive year great advances were made in per capita consumption of meat, milk and butter:

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[78] In the first nine months of the year the rise in Rumania was only 2 per cent, against 10 per cent for the year 1958.

[79] There have also been marked increases in imports of coffee in most countries, of cocoa in eastern Germany, and of tropical fruit in eastern Germany and Hungary.

[81] The Hungarian Minister of Food attributed part of the rise in retail sales in Hungary in 1959 to increased retail purchases of food by the village population. This was in part a consequence of the bad bread-grain harvest of 1958 — which reversed the annual decline since 1955 in sales of bread and caused instead a rise of 11 per cent in 1959 together with a 17 per cent increase in flour sales — but also reflected increased peasant reliance on retail supplies following collectivization. In the three main areas of collectivization, Györ, Veszprém and Somogy, the percentage increases in retail trade were 20.5, 19.0 and 15 respectively, compared with 12.7 for the whole country excluding Budapest and a country-wide average of 11.2 (*Népszabadság*, 22 November 1959 and 23 January 1960 and *Figyelő*, 23 February 1960).

Per capita consumption in kg.

	1957	*1958*	*1959*
Meat	48.5	50.8	56.2
Milk and milk products . . .	86.0	94.7	111.0
Butter	10.7	11.9	13.4

Sources: Statistical yearbooks and *Neues Deutschland,* 1 January 1960.

The contrast between rates of growth of supplies of foodstuffs and textiles, on the one hand, and of durable goods, on the other, was particularly marked in Poland. It was noticeably less acute in the Soviet Union and the distribution of sales was fairly even in Hungary (see Tables 18 and 19). Only scattered data are available for other countries.

The rapid increases in sales of durable goods shown in the table were chiefly the result of higher home production (almost entirely so in Poland); but in some countries this was supplemented by increased imports. Eastern Germany extended its imports of motor-cycles by 25 per cent, and also imported 4.3 million pairs of leather shoes (double the 1958 figure); and Hungary imported 11 times the 1958 quantity of refrigerators as well as increasing imports of cars and motor-cycles. Indeed Hungary is the one country for which a rapid rise in total imports of manufactured consumers' goods has been reported (see Table 13 above). Sales of textiles revived in Hungary, but sales of woollen textiles declined in Poland; and in the latter country prices of shoes and textiles were reduced in 1959 and further cuts are announced for 1960. Sales of cotton textiles rose by 7 per cent in the Soviet Union but those of other textiles remained stationary.

TABLE 19

Retail sales of certain products in five countries in 1959

Percentage increases at current prices

	Bulgaria	Hungary [a]	Poland [b]	Rumania	Soviet Union
Meat and meat products .	13	10	−3.3	5	20
Butter	20	25	−2.3		5
Milk and milk products .	26	11	8.6 [c]	6 [c]	18
Eggs	9	10	2.2	..	9
Sugar	13	..	6.4	10	10
Vegetables	30 [d]	..	..	..	8
Fruit	36 [d]	..	..	33	10
Woollen fabrics	15	..	−3.0	..	3
Cotton fabrics	11	20	9.3	..	7
Ready-made clothing . .	21	..	6.9	36	10
Knitwear	..	26	..	22	13
Leather footwear	25 [e]	22	4.8	9	10
Furniture	22	..	10.7	..	28
Refrigerators	..	..	74.7	..	23
Washing machines . . .	..	..	95.9	..	35
Motor-cycles and scooters	..	..	24.4	..	19
Radios	28	..	−8.1	..	14
Television sets	..	186	85.7	..	21
Vacuum cleaners	..	..	68.3	..	55

Sources: Plans and plan fulfilment reports.

[a] Changes in quantities sold.
[b] Supplies to the trade network.
[c] Milk only.
[d] Canned.
[e] All footwear.

In all countries the general problem of quick adaptation of production and supplies to consumers' tastes and preferences [82] remains to be solved. In Poland, for example, the failure adequately to adjust relative supplies — or relative prices, despite the price-cuts mentioned above — at the time when demand for some manufactured goods slowed down, was at least partly responsible for the meat crisis in 1959. Stocks of such goods as radios and television sets, sewing machines and textiles rose to 5.8 million zlotys by the end of the year, and contributed to the considerable excess over the planned stock-building in 1959; [83] and additional facilities for instalment buying were offered to the public at the beginning of 1960. They had hitherto been available only on a limited scale and for a restricted range of goods. This extension, and the introduction of such facilities in the Soviet Union in August, has brought the deferred-payment system for consumers' durable goods to all countries of the region except, as yet, Bulgaria.[84] Unwarranted increases in trade stocks were also reported in the Soviet Union, where the coefficient of stock-accumulation increased from 74 turnover-days at the beginning of 1958 to 83 days at the beginning of 1959 and to 85 days by the end of September 1959. In Hungary, despite improvements in quantity and quality of consumers' supplies, shortages of a number of products — furnishing fabrics, electrical fittings, bath-tubs and "many minor articles of daily use" — are reported still to persist. [84a]

As the result of income increases, but partly also on account of maladjustments between the volume of purchasing power and the structure and quality of marketed goods, savings rose everywhere by large margins:

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[82] See the SURVEY for 1958, Chapter IV, section 3; and the *Bulletin,* Vol. 11, No. 3, pp. 50-51.

[83] Total trade stocks rose in the course of the year by 6.6 billion zlotys instead of the 4.8 billion planned.

[84] On its introduction in Albania, Czechoslovakia, eastern Germany, Hungary and Rumania, see the *Bulletin,* Vol. 10, No. 3, p. 28.

[84a] *Népszabadság,* 22 and 23 January 1960, quoting *inter alia* the Minister for Home Trade.

Savings deposits in billions of national currency

	Value			Percentage increase in 1959 over 1958
	End 1957	*End 1958*	*End 1959*	
Bulgaria	3.4	..	5.7	..
Czechoslovakia	11.9 *	14.7 *	17.6 *	*19* *
Eastern Germany	9.0	11.2	ca.15	ca.*34*
Hungary	1.3	2.2	3.8	*36*
Poland	5.5	7.7	ca.12	ca.*56*
Rumania	..	..	..	*38*
Soviet Union	81	87	>100	>*15*

Sources : Statistical yearbooks and plan fulfilment reports; *Rabotnichesko Delo*, 22 December 1959; *Rudé Právo*, 7 and 18 February and 1 March 1960.

Housing construction continued vigorously everywhere (see Table 20); but in eastern Germany total and private construction were below the levels planned, although plans in the state sector were exceeded. In Poland, on the other hand, the underfulfilment of the plan was due to failures in the local government sector and to a slowing-down of rural housebuilding. In the Soviet Union, rural housebuilding rose by nearly one-fifth, and state and other urban construction by 18 per cent. The share of construction financed wholly or partly by private means seems to have increased in Czechoslovakia and Poland — and possibly also in the Soviet Union (as witnessed by the 35 per cent increase in sales of prefabricated houses).

TABLE 20

Dwelling construction in six countries, 1958-1960

Thousands of dwellings

	1958	1959	1960 Plan
Czechoslovakia			
Total	53.4	65.5	78.3
of which : State	36.5	43.2	40.3
Co-operatives and enterprises	8.5	1.8	13.0
Private	8.4	20.5	25.0
Eastern Germany			
Total	63.5	78.9	101.5
Hungary			
Total	41.8	45.0	39.2
of which : State	10.9	..	14.2
Subsidized and private	30.9	..	25.0
Rumania			
Total	84.2	..	..
of which : State and co-operative	15.9	21	30
Soviet Union			
Total	2 660	>3 050	..
of which : All urban and state construction	1 960 [a]	>2 200 [a]	2 780 [b]
Non-state rural construction	700	850	..
Poland	*Thousands of rooms*		
Total	368.2	376.1	
Urban	206.0	240.6	
of which : Co-operatives	7.4	27.7	
Private	38.2	53.3	
Rural	162.2	135.5	

Sources : Statistical yearbooks and bulletins; plans and plan fulfilment reports; *Die Wirtschaft*, 18 February 1960; and *Rudé Právo*, 18 February 1960.

[a] Reported as 80 million sq.m. of floor space in 1959 and 71.2 million sq.m. of floor space in 1958.

[b] Reported as 101 million sq.m of floor space.

The Continuing Reforms of Wage Systems

While raising money incomes and living standards in recent years, governments throughout the area have been trying simultaneously to improve wage structures and systems of incentives for workers and managements. The progress of such reforms has been reported in earlier ECE publications.[85] The Rumanian comprehensive wage and social security reform, reported in the last issue of the *Bulletin*, was declared completed by August 1959; but in most other countries further measures were implemented in the course of the year, and in the Soviet Union and Poland the bases for remuneration of technical and administrative salaried staff were reviewed.

In Czechoslovakia, the revised wage system covered, by February 1960, about one million industrial workers (out of about 1.5 million eligible), and the reform is expected to be completed during the first half of the year.[86] The essence of the new system is the upward adjustment of work-norms, to be based on technical coefficients; but its net effect on the average level of earnings is not unfavourable, since a reclassification of occupations according to skill is resulting in the up-grading of many workers and, in addition, the reform is accompanied by general increases in basic wages. A survey has shown that, in the factories which have introduced the new wage structure, the hourly earnings of more than 60 per cent of workers rose, those of 20-25 per cent remained unchanged, and those of 15-20 per cent were reduced. The evaluation of the impact of the new system on productivity and costs has been favourable, though the readjustment of norms apparently encountered some difficulties, particularly in engineering.[87]

In the Soviet Union, the wage reforms were started in 1959 in the oil and engineering industries, and will be completed in industry and construction, and started in transport and state farms, during 1960.[87a] In this country, revision of the wage-system has been accom-

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[85] See the SURVEY for 1956, Chapter I, section 6; the SURVEY for 1958, Chapter I, section 2; the *Bulletin*, Vol. 8, No. 2, pp. 37-40, Vol. 8, No. 3, pp. 39-41, Vol. 11, No. 1, pp. 15-18, Vol. 11, No. 3, pp. 46-49.

[86] On 1 February 1960, the percentage of workers paid under the new system in different industrial branches was as follows:

Fuels	93.3	Heavy engineering	56.3
Metallurgy and ore mining	64.6	General engineering	53.3
Power and water conservation	76.5	Food processing	95.9
Chemicals	100.0	Other consumer goods	67.4

Source : Hospodářské Noviny, 29 January 1960.

[87] Mr. Novotný's statement and other articles in *Rudé Právo*, 3 and 23 January and 18 February 1960.

[87a] *Kommunist*, No. 3, 1960, p. 33.

panied by increases in minimum wage-rates and in most cases by reductions of the working week;[88] and, by the end of 1959, 23 per cent of wage-earners had their working day reduced to 7 hours, or to less in some occupations.

Important new regulations governing the allocation and distribution of premia to the managerial staff of enterprises (including engineers and technicians) in industry, construction, transport and state farms, were also introduced in the Soviet Union, effective partly from 1 October 1959 and partly from 1 January 1960. It is now recognized that the linking of premia to the fulfilment of quantitative production plans is obsolete, since it does not discriminate by quality and cost and fails to provide sufficient incentives to management to consider such factors.[89] According to the new regulations, managerial staff in industry, construction and transport will receive premia for fulfilment or over-fulfilment of the plan for cost reductions — and in some branches of industry also for improving quality — provided that the overall production plan, the assortment plan, the labour productivity plan and the plan for deliveries to other economic regions and other enterprises have all been fulfilled.[90] On state farms, premia will be paid for the over-fulfilment of profit and of delivery plans. To thwart the efforts of some enterprises to increase their premia by understating production results in one month so as to obtain particularly large increments over plan next month, the new premia will be paid for quarterly results; and maxima are also introduced amounting to 60 per cent of monthly salary in extractive industries, metallurgy and chemicals, and 40 per cent in other industrial branches, in transport and on state farms. It is expected that the imposition of these limits will help to reduce the spread of personal incomes in the Soviet Union.[91]

Revision of the existing wage-norms seems to have been less rigorously applied until now in Poland than in other countries; but the need for more vigorous action has been emphasized at recent meetings of the Central Committee of the United Workers' Party, and corresponding provisions are incorporated in the 1960 plan. The principal aim of wage and income policies for 1960 is to continue this reform while holding average real wages virtually constant — thus leaving scope for some stock-building in the consumers' market against later adjustments of relative prices within a constant or declining general price level. However, it may be more difficult in Poland than in other countries of the area to hold practically constant both average real wages and the general levels of money wages and prices. Control of peasants' incomes is more difficult than in economies with a highly collectivized agriculture, and the maintenance of desired real income differentials — both between the country and the town and within the urban sector — may well necessitate the acceptance of some inflation of average money incomes and prices.

The system of premia for administrative and technical staff, introduced in Poland at the beginning of 1960, has as its aim the elimination of the same deficiencies which prompted the Soviet revision, but its methods are somewhat different. Two premium funds are to be set up in each enterprise. The principal premium fund will be distributed on the attainment of overall results not more than 5 per cent worse than those of the preceding year.[92] The second ' special ' fund will reward results better than those of the past year. The size of this fund depends, however, on whether or not the realized improvement was planned; and planned improvement is rewarded more highly than unplanned successes in order to deter enterprises from understating their production possibilities.[93] The limit for premia payments to any individual is set at 15 per cent of annual salary; but an additional 5 per cent of the salary bill may be allocated to the " guarantee fund ". This is financed from surpluses remaining after payments from the special fund have reached their statutory maximum, and may be distributed when poorer economic results are due to disturbed production following the introduction of new techniques. In contrast to the expected results of the Soviet reforms, the Polish system should result in an increase in effective salaries of industrial management personnel of 300 million zlotys per annum.[94]

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[88] See also Chapter III, section 6.

[89] The attainment of the product-mix (" assortment ") and cost plans has been for some time a necessary condition for allocation of premia, the amount of which was proportionate to the fulfilment of the production plan.

[90] After the June session of the Central Committee of the Party, the fulfilment of plans for introduction of new techniques has been added as a further condition. In some specific industrial branches, however, where the quantity of production is considered to be of overwhelming importance to the national economy, such as most of the extractive industries and some branches of engineering, payment of premia for the simple quantitative over-fulfilment of output plans will be allowed.

[91] For further details of the reform see *Sotsialistichesky trud*, No. 10, 1959, pp. 60-63.

[92] The basic criterion is " rentability ", which includes reduction of costs, increase in quantity produced, widening of assortment and increase in financial accumulation (*Trybuna Ludu*, 5 February 1960).

[93] The following hypothetical example was cited in *Trybuna Ludu*, 14 February 1960, to illustrate the operation of the new system:

Past year's result	*Plan*	*Current year's result*	*Special premium fund*
Millions of zlotys			*Thousand zlotys*
20	22	23	397.5
20	24.5	23	345.0
20	23	23	480.0

[94] This figure represents 2.7 per cent of the total wage-fund of all technical and administrative employees in industry in 1958, but only a small proportion of this category will become eligible for premia.

PART II

THE NEW ECONOMIC DEVELOPMENT PROGRAMMES IN EASTERN EUROPE AND THE SOVIET UNION

Chapter III

THE LONG-TERM PLANS IN THE SOVIET UNION AND EASTERN EUROPE

1. Introduction — The Growth and Use of Total Output

The Objectives of Economic Planning

Economic development plans for varying periods up to 1965 have been published during 1959 in the Soviet Union, Czechoslovakia, eastern Germany, Hungary and Poland.[1] A few isolated details of planned developments in individual sectors have been published in Albania and Bulgaria; and more comprehensive plans for these countries and Rumania are expected to be announced early in 1960.

All these seven- or five-year plans are being elaborated within the framework of "perspective" plans culminating in 1975 — of which few details have yet been published, except in Poland.[2] They have also been subject to discussion in the Council for Mutual Economic Assistance, and in the course of such discussions plans for certain branches of production have been elaborated for the area as a whole.[3]

In each country the five- or seven-year plans naturally provide a framework for future annual plans which, in turn, will inevitably modify the 1965 targets themselves as time passes. The resolution of the XXI Party Congress in the Soviet Union "invites the Central Committee of the Communist Party and the Council of Ministers of the USSR to make the necessary adjustments of detail [to the seven-year plan] resulting from the progress made by economic development under the annual plans . . . established on the basis of the control figures approved by the Congress". As no comprehensive 1959 plan for the Soviet Union was published (in contrast with practice in the recent past) it is impossible to say whether or not some "adjustments of detail" were made for that year; but "the 1960 plan adopted by the Supreme Soviet provides for a considerably higher increase in industrial production than was originally planned for the second year of the Seven-year Plan"[4] and the Central Committee subsequently raised some of the investment targets implied in the original control figures.[5]

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[1] The Soviet and east German seven-year plans cover the period 1959 to 1965, and Czechoslovakia and Poland are establishing five-year plans for 1961 to 1965. In Hungary the plan formally covers the period 1961 to 1965; but most targets, other than those for investment, are given in terms of increases in 1965 over the 1958 level.

The legal status of the plans varies. In the Soviet Union the "control figures" for the plan — differing little from those in Mr. Khrushchev's "Theses" approved by the Central Committee of the Communist Party in November 1958 — were endorsed by the XXI Party Congress on 5 February 1959. In Czechoslovakia the "directives" for the Third Five-Year Plan were approved by the Central Committee of the Communist Party and by the Government in October 1959; and in Hungary the "Directives of the Central Committee of the Hungarian Socialist Workers' Party on Economic Tasks and the Preparation of the Second Five-Year Plan" were endorsed by the Party Congress on 5 December 1959. In Poland the plan takes the form of a submission by the Council of Ministers, not so far accepted by the *Sejm* but based on a resolution approved by the Third Congress of the Polish United Workers' Party in March 1959. Only in eastern Germany has the plan yet been formally endorsed by the Parliament — on 1 October 1959.

[2] See M. Kalecki "The 1961-1975 Long-run Economic Plan", *Nowe Drogi*, No. 8, 1958, reprinted in *Polish Perspectives*, Warsaw, March 1959, No. 3 (11). In other countries output targets for selected commodities have been published, some of which are referred to in section 4 below. Fifteen-year targets for 11 industrial products were published in the Soviet Union in November 1957 (see the Survey for 1957, Chapter I, Table 21). Sector studies on fifteen-year plan-horizons in the Soviet Union have been concerned with fuel (*Voprosy ekonomiki*, No. 5, 1958, and *Gazovaya promyshlennost*, No. 4, 1958), electricity (*Izvestia*, 13 December 1959), cement (*Voprosy ekonomiki*, No. 11, 1956) and timber (*Lesnaya promyshlennost*, No. 4, 1958).

[3] See section 4 below and the *Economic Bulletin for Europe*, Vol. 11, No. 1, pp. 55-65.

[4] Mr. Aristov, a Secretary of the Communist Party Central Committee (*Pravda*, 7 November 1959).

Elsewhere, discussion continues on the relative significance to be given to five-year (or seven-year) and annual plans in the future. On the one hand it is emphasized that the longer-term plans are to be regarded as general outlines of policy to guide the construction of successive annual plans, rather than as directives to be followed in every detail; on the other hand, the considerable decentralization of industrial and agricultural planning and management already effected has led to consideration in some countries of the possibility of giving more freedom to subordinate bodies (such as specialized ministries, industrial directorates or associations, or enterprise managements) to determine their short-term output and investment policies fairly independently within the framework of central decisions covering periods longer than a single year.

The greater flexibility introduced into annual planning in most countries in recent years is also reflected in the long-term plans by a reduction in the number of quantitative production targets by comparison with similar plans in the past. The model of the economy in 1965 may be set up by the central planning authorities in detail fully as elaborate and quantitatively precise as ever; but even some of the published quantitative 'targets' for output of particular products should rather be described as 'estimates'. They are subject to variation, within limits, in the light of actual developments not only of supplies of incorporated materials, but of market conditions also; and for some industrial branches the operational production targets are expressed simply in terms of gross value of output.

Moreover, in recognition of the need for flexibility, 'reserves' have, in one way or another, been built into some of the plans — either in the form of deliberately modest assumptions about possible growth of output in some sectors or, in Hungary for example, through provision for an increase " in the raw material, foreign exchange and other reserves in accordance with the requirements of planned economy and defence ".[6] Some specific targets for output and for productivity growth, notably in eastern Germany, nevertheless appear extremely ambitious.

Although no generalization applying to all the eastern European countries concerned (Czechoslovakia, eastern Germany, Hungary and Poland) can be completely valid, it is broadly true that in each plan the key targets include the level and distribution of the bulk of all fixed investment.[7] Among other priority targets are those for total supplies — and distribution to processing industries — of the " scarcest " materials (varying somewhat from one country to another according to the nature of its resource endowment and import dependence), for the output of major export industries, and often for output of those branches being newly established with heavy capital outlay. But in most fields, the earlier pressure to raise physical output " at all costs " has progressively given way, since about 1956, to a greater concern with the costs and quality of production and with market requirements, which is apparently to continue during the period of the new plans.

The increasing attention paid to costs, and specifically to the economic efficiency of investment as well as to labour productivity, has not only influenced the micro-economics of planning and management in all countries of the area — for example, the criteria applied in measuring the success of an enterprise. It has also influenced the construction of the new long-term plans, though in varying degree in each country. The successive price reforms of recent years have tended, in each of the four eastern European countries under consideration, to reduce (even if not yet to eliminate) the divergence between the cost structure and the structure of ex-factory (or farm) prices, and to reduce the degree of under-valuation of imported raw materials and equipment. This has made it somewhat easier to compare returns to labour and capital in different uses; and the calculation of " export efficiency indices ", and in some cases of the relative returns to possible import-saving investments, has become an integral part of foreign-trade planning in these four countries.[8] However, the weight given to such considerations in drawing up the new long-term plans can, in no case, have been overwhelming. Fears of unfavourable conditions in export markets or of heavy import dependence in key sectors of activity have influenced national foreign trade and investment plans, as have agreements on economic co-operation and specialization in particular sectors negotiated in the Council of Mutual Economic Assistance. In all countries, technical factors (availability of scientists, skilled labour, specific types of equipment, etc.) limit, though less seriously than in the past, the possible rates of expansion in some, otherwise promising, branches of activity. Social considerations have naturally influenced the allocation of resources to education, housing, and other social investment.

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[5] During 1959 plans raising rates of growth in the catering and consumer-service industries were promulgated (*Pravda*, 28 February and 13 March 1959) and investment in the pharmaceutical and textiles industries was increased (*ibid.*, 10 December 1959 and 20 January 1960). In approving the Control Figures the Party Congress appears, moreover, to have deferred some decisions on the distribution of investment between existing and new plants to the June 1959 Plenum of the Central Committee (see Chapter IV, section 3).

[6] *Társadalmi Szemle*, No. 10, 1959, p. 115.

[7] In Hungary central control over investment has even been somewhat extended, to some extent reversing the earlier devolution of decision-taking in part of this field. However, a conflict exists everywhere between the desires to control effectively the use of scarce investment resources and to reap the benefits, in enterprise efficiency etc., of some decentralization of investment decisions.

[8] See the *Economic Bulletin*, *op. cit.*, pp. 69-72.

Within any industrial branch, however, it is clear that capital efficiency, current production costs and market requirements will be given increasing weight both in drawing up plans and in measuring the success of enterprise management. In Hungary, for example, the Ministry of Light Industry now operates with four basic indicators of success in plan-fulfilment: (i) sales of products (in value terms) to the Ministries of Internal and Foreign Trade, etc., (ii) supply of key materials, (iii) average wages, and (iv) allocations for amortization and new investment. Other ministries use some additional indicators — for example, the divergence from planned costs per 100 forints of output. Moreover, over-fulfilment of output plans will be regarded as commendable in future only if this satisfies market requirements and does not overstrain supply possibilities.[9]

The Directives on the Soviet Plan state that "the Communist Party attaches prime importance to the most effective channels of capital investment which will best contribute at less cost and in the shortest possible time to a steady expansion of productive capacity and industrial output, through raising labour productivity and reducing production costs". Concern with returns to capital is carried into the micro-economic sphere by introducing the capital/output ratio as one indicator of relative efficiencies of enterprises in the same branch of production.[10]

The Growth of Output

The data in Table 1 illustrate some of the main phases of the past changes in planning objectives. The years up to 1953 were those of single-minded concentration on industrial expansion, and on heavy industry in particular. The very high rates of growth of industrial output reflected, in the eastern European countries, both intensive use of labour and existing capacity and a rapid rise in investment at the cost of a virtual stabilization, or even some decline, of consumption standards. In subsequent years the investment drive was relaxed in most countries, and its balance shifted in favour of consumer-goods industries, agriculture and housing. Some priority was accorded to raising standards of living, and the pressure for higher output became less intense and more discriminating, with gradually increasing attention being given to the cost, composition and quality of production. The years 1957 and 1958 saw marked improvements in supplies of fuels and raw materials in eastern Europe, partly the result of past investment activity and partly due to a marked expansion of imports from the Soviet Union and elsewhere. The rate of growth of output was maintained, with continuing improvement of its quality; and in 1959 a new investment drive began to provide for further rapid expansion of capacity.[11]

Thus, despite the increasing stress on objectives other than crude expansion of production, the four eastern European countries (Czechoslovakia, eastern Germany, Hungary and Poland) predict increases in gross industrial output per worker employed at annual rates little different from those of the recent past. The Soviet plan is unique in implying a fall in the rate of growth of labour productivity in industry during the plan period slightly below that registered in any year of the past decade (see Table 1 and Chart 1 below). This is partly accounted for by reductions in working hours, but some such reductions will occur in other countries also.

Expected trends in the industrial labour force vary from country to country, and are discussed, with the productivity changes, in section 2 below. They result in a significant slowing of the growth of total gross industrial output from the 1956-1959 annual rate in only one eastern European country — Czechoslovakia — and the bare maintenance of the past rate in eastern Germany, despite the acceleration of productivity growth in these two countries. The rise of total industrial output in the Soviet Union is also expected to slow down, though less than the growth of labour productivity since the labour force will continue to expand fairly fast. The Hungarian plan also predicts a rise of total output much greater than that of productivity.

The annual rates of growth of industrial production forecast for the years 1959 to 1965 in fact vary relatively little — from 7½-8 per cent in Hungary to nearly 9½ per cent in eastern Germany (see Table 1).[12] In the four countries which have published estimates of agricultural output in 1965, it is hoped that gross output will rise about as fast as in the recent past in the Soviet Union (where growth was particularly

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[9] "In the future we have to ensure that the quantity of production is increased and production plans exceeded only when both the necessary fuels and materials are available and markets for the products are assured." (From the Plan Directives, reported in *Társadalmi Szemle*, No. 10, 1959, p. 114.)

[10] See the *Economic Bulletin*, Vol. 11, No. 3, p. 35.

[11] The phases described above have been rather different in eastern Germany. For more details on relative changes in rates of growth of investment and consumption, see the SURVEY for 1958, Chapter IV, section 1.

[12] In considering these figures, the fact that they measure the growth of *gross* industrial output (including both inputs from other sectors and duplication within the industrial sector) must be borne in mind. The divergences between rates of growth of gross output and of output net of duplication and of inputs from other sectors have narrowed in recent years (see the SURVEY for 1958, Chapter I, Table 2) though it cannot be concluded that there will be no divergences in future. For agricultural output a close coincidence of rates of growth gross and net can certainly not be assumed.

TABLE 1

Some main indicators of economic developments, past and planned

Cumulative annual percentage rates of growth, at constant prices except where otherwise indicated

Country and period	Gross output of Industry: Total	Gross output of Industry: Per worker	Gross output of Agriculture: Total	Agriculture: Plant production	Agriculture: Animal production	Net domestic product	Personal consumption: Total	Personal consumption: Per capita	Gross fixed investment	Imports	Exports
Czechoslovakia										*Volumes*	
1951-1953	13.5	10.8	0.1	4.0	−5.4	8.6	—	−1.1	13.2	8.3	9.1
1954-1955	7.7	5.1	4.3	0.6	10.0	7.5	11.0	9.9	3.1	10.5	12.3
1956-1958	10.3	6.7	1.5	—	3.4	7.1	5.6	4.6	13.5	12.3	10.2
1959	10.9	8.0	−1.4	−4.5	2.4	5.0	5.0	4.4	18.5	18.1[a]	13.9[a]
1960 Plan	10.2	7.3	13.1	18.1	7.1	6.1	5.4	4.2	12.3	9.1	10.4
1961-1965 Plan	8.5	7.0	3.9	4.1	3.9	7.4	5.5	4.8	8.3	5.7	6.5
1959-1965 (derived)	9.1	7.2	4.4	4.7	4.1	6.9	5.5	4.7	10.3	7.8	8.1
Eastern Germany[b]										*Current values*	
1951-1953	16.5	10.8	6.0	1.3	10.2	13.0	12.1	12.6	18.7	27.9	33.6
1954-1955	9.9	6.8	5.1	4.5	3.9	8.7	7.0	7.7		9.3	14.9
1956-1958	8.3	6.6	4.4	0.7[c]	2.9[c]	7.4	6.1	7.2	19.5	12.7	13.9
1959	12.3	10.0[d]	..	..	..	..	..	..	13.8	18.0	14.0
1959-1965 Plan	9.4	9.2[d]	..	..	..	6.8	..	7.2[e]	10.4	7.2	9.3
Hungary											
1951-1953	22.0	7.4	1.9	8.3	−7.3	9.1	1.1	0.2	20.4	14.0	15.2
1954-1955	4.9	3.4	6.8	0.9	16.8	2.2	13.4	12.1	−18.4	6.5	10.0
1956-1958	4.5	2.6	1.6	−0.4	4.7	5.2	7.5	7.3	6.3*	5.5	3.7
1959	12	5	3	..	..	8	7	6.5	20	23	12
1959-1965 Plan	7.5-8	4.5-5	3.8	4.0	3.6	6.0	5-5.5[f]	4.1-4.6[f]	11½*	6.5*	
Poland										*Volumes*	
1951-1953	20.5	12.4	0.1	−1.0	0.8	8.0	5.0	3.0	15.8	3.0	2.2
1954-1955	11.5	6.8	3.2	2.5	3.7	9.5	13.5	11.4	4.6	10.0	8.3
1956-1958	9.4	6.4	4.6	0.8	7.0	7.2	8.2	6.3	7.0	6.6	4.3
1959	9.0	7.4	−1.3	−1.7	−0.8	5.0	6.5	4.7	14.4	15.0	11.0
1960 Plan	7.6	6.9	ca. 3.8	5.0	2.0	5.7	ca. 2.0	—	6.4	2.0	8.6
1961-1965 Plan	8.4	6.6	3.9	3.4	4.5	7.0	6.0	4.4	7.9	4.9	7.7
1959-1965	8.3	6.7	3.1	2.8	3.5	6.4	5.4	3.7	8.5	4.6	6.8
							Per capita				
Soviet Union							*Workers*	*Peasants*		*Current values*	
1951-1953	13.3	7.7	1.4	−0.7	6.0	11	6.6	8.5	9.4	16.0	13.8
1954-1955	12.8	7.7	7.9	8.7	6.5	12			11.8		
1956-1958	10.1	6.5	8.4	9.5	8.1	9.8	3.9	7.3	10.8	12.5	8.3
1959	11.5	7.4	..	..	..	8	..	..	9.9	18.5	
1960 Plan	8.1	5.8	..	..	..	9	5		11.4	5.5	
1959-1965 Plan	ca. 8.6	5.5-6.0	ca. 7.8	6.9*	9.4*	7.2-7.4	4.9	4.9	8.3-8.5	g	

Sources and methods : See Appendix B.

NOTE. — The rates of increase shown in each row are the averages of those registered in each year, within the named range, over the preceding year (e.g., the rate of increase during 1951-1953 is the average of the changes from 1950 to 1951, from 1951 to 1952 and from 1952 to 1953).

Gross output of industry excludes, in the Soviet Union, industrial processing in collective farms. In Hungary it covers state industry only; in Poland, socialist industry only.

Gross fixed investment in the Soviet Union covers only outlays written into the central State Plan and excludes costs of drafting and projecting. During 1959-1965 this is to be 1,940-1,970 billion roubles (the cumulative annual rate shown being that which would ensure execution of the seven-year volume) out of total investment estimated at ca. 3,000 billion roubles; the relationship between these two categories in the earlier periods shown in the table is not precisely known. In eastern Germany the data for 1951-1955 cover state investment only: during 1956-1958 the annual rise in state investment alone was 21.5 per cent. In Hungary data cover state, co-operative and state-financed investment excluding capital repairs and the total for the five plan years is spread as for the Soviet Union. In Czechoslovakia and Poland all investment data exclude capital repairs, and in Hungary they exclude repairs financed from amortization quotas.

Personal consumption in eastern Germany includes the net increment in the value of "non-productive" construction (housing stock, school buildings, hospitals, etc.), but this is also included in investment outlays as shown in the table.

[a] Current values.

[b] All data except those for industrial and agricultural production are in current prices. The rise in the overall price level from 1951 to 1957 has been estimated at about 2 per cent and that from 1955 to 1958 at 2.3 per cent. (Various issues of *Vierteljahreshefte zur Statistik der DDR*.) Consumers' prices fell by 3.8 per cent from 1955 to 1958 and have also fallen by 2 per cent from 1958 to 1959.

[c] 1956-1957.

[d] Socialist industry only.

[e] Planned rise in real wages. The average annual rate of growth of per capita real earnings of workers and employees during 1951-1955 was 18.3 per cent, and during 1956-1958 it was 5.4 per cent.

[f] Consumption fund. Real income per family member of wage and salary earners is planned to rise at an average annual rate of 3½ per cent; real per capita income of farm families at a rate of 4-4½ per cent.

[g] The Minister for Foreign Trade of the USSR has expressed the hope that total trade turnover might double during the plan period—i.e., rise at an annual rate of about 10½ per cent. (*Pravda*, 18 February 1959.)

rapid) and Poland, and rather faster in Czechoslovakia and Hungary. The forecast rates of growth of net domestic product during 1959 to 1965 range from 6 per cent a year in Hungary to 7-7½ per cent in Poland and the Soviet Union; and only in Hungary does this represent an acceleration of the past expansion. In Albania, national income (not precisely defined) is planned to rise by 5.4 per cent a year from 1960 to 1965, compared with 7 per cent during 1956-1959 and 11½ per cent during 1951-1955.[13]

It is clear, from the figures in Table 1, that for all countries 1959 has been a highly successful year for industrial output, when measured against the long-term plans, and it may be that this experience will produce some upward revisions of the latter. Already in the Soviet Union and Hungary the targets for 1960 have been set higher than originally envisaged. As a result of the experience of 1958 and 1959, it is now expected in Hungary that output in 1960 will be considerably above the targets set in the original 1960 plan.[14] The index for domestic product is now forecast (1957 = 100) at 125 instead of 113, with state industrial output increased from 125 to 135 and gross agricultural production from 112 to 114. However, it seems that, in drawing up the 1961-1965 plan, the results of 1958 were already taken into account, so that the eventual revisions of the long-term targets may not be so substantial as the contrast between the old and new 1960 estimates might suggest.

In comparing the planned rates of growth of national product in the eastern European countries and the Soviet Union with those registered in the OEEC countries and the United States in recent years (annual averages of 4.2 per cent and 2.2 per cent respectively from 1951 to 1958),[14a] the effects of differences in the coverage of these aggregates (" non-productive " services being excluded in the planned economies) and in price structures have to be borne in mind. Rates of growth probably tend to be somewhat inflated in the former countries, as compared with those recorded in western Europe and the United States, by *inter alia* the relative under-valuation of output of agriculture — the sector generally showing slower-than-average rates of expansion — in the national accounts of eastern Europe and the Soviet Union.[15] It is difficult to assess the influence on the apparent overall rates of growth of the exclusion of non-productive services from the national product as defined in the latter group of countries.

In the Soviet Union a number of indicators are available on trends in " non-productive " services during the periods under review; and these suggest that a definition of net national product on the basis of the United Nations system of national accounts would yield rates of growth little different from that of material product.

Estimates of components of net domestic product [a]

	Approximate share in 1955	1951 to 1955	1956 to 1958	1959 to 1965 Plan
		Annual percentage rates of change		
Net material product	*84*	11.4	9.7	7.3
State social outlays	..	4.8	11.8	7.6
of which :				
Services	*7*	6.8	3.0	..
Consumer services	*2*	..	..	..
of which :				
Passenger transport	*1*	11.5	7.2	..
Cinemas	*½*	17.0	10.5	5.4
Government and defence outlays	..	4.6	−4.0	—?
of which :				
Armed forces	*3*	ca. 11	−14.0	−5.3 [b]
Civil Service	*2*	−5.5	−1.8	..
Imputed and paid rent	*2*	4.7	7.0	7.0
SNA definition	*100*	10.7	8.2	ca. 7*

Sources and methods : See Appendix B.

[a] Following the definitions in the United Nations System of National Accounts (SNA).

[b] Reduction announced for 1960-1961, assuming that the strength is not further reduced.

In the eastern European countries other than eastern Germany the rate of dwelling construction will rise during the plan period, but not so fast as to make it likely that the inclusion of rent (actual and imputed) in national product would noticeably raise the apparent overall rate of growth. Such evidence as exists suggests also a fairly general increase in the rate of expansion of some personal services, and of such centrally provided services as education and health; but a further cutting down of administrative employment is planned in some countries, and the levels of " non-material " defence expenditure are, as always, a matter for conjecture. Nevertheless, it seems unlikely that a re-computation of the past and planned national products of these countries on 'western' coverage would show a significantly different change in the pace of expansion from that indicated by the data in Table 1, or future rates of growth very significantly below those shown in the table.[16]

Plans for Foreign Trade

The extent to which the domestic expansion foreseen in each country will be supported by foreign trade is discussed in section 5 below. In overall terms, the volume of imports is expected to grow, until 1965, at least as fast as national product in Czechoslovakia, eastern Germany and Hungary; but the 'import content' of overall output will continue to fall in Poland unless export prospects prove considerably better than the planning authorities have so far assumed is likely.[17] The foreign trade plans of the Soviet Union have not been stated in precise terms. A 6 per cent annual rise in turnover with other socialist countries is written into the Seven-year Plan as a minimum;[18] and this implies a falling ratio of trade to national product unless trade with the rest of the world is expected to grow by some 10 per cent a year, thus raising the annual rate of growth of total trade to over 7 per cent.[19] However, the Minister for Foreign Trade of the USSR has expressed the hope that the total volume of trade might double during the plan period (i.e. rise at an annual rate of about 10½ per cent);[20] and it may be presumed that such an expansion would imply an upward revision of the planned turnover with socialist countries.

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[13] Statement by the Deputy Chairman of the State Planning Commission, *Bashkimi*, 25 September 1959.

[14] *Népszabadság*, 1 and 29 January 1960.

[14a] In both cases 1951 was a boom year and 1958 a year of recession.

[15] See the *Economic Bulletin*, Vol. 11, No. 3, pp. 64-66. The relative inflation of the Polish figures shown in Table 1 may be less than that of other countries' data since, in the Polish plan, production is valued at " factory " prices rather than " realized " prices, thus lessening the distortion of relative prices by the incidence of turnover tax.

[16] In Hungary additional evidence in support of this supposition is provided by the very rapid increase in " non-productive " employment noted in section 2 below.

The Planned Use of Resources

In the five countries for which long-term plans are available, the increases in total resources expected by 1965 and the contemporary investment efforts are approximately indicated by the following index numbers:

	Gross fixed investment	Net domestic product	
	Total 1959-1965 (1952-1958 = 100)	1958 (1951=100)	1965 (1958=100)
Czechoslovakia . . .	200	165	159
Eastern Germany . .	203[a]	175	160
Hungary.	145	135	150
Poland	169	173	160
Soviet Union. . . .	182-185	201	162-165

NOTE. — For definitions, see notes to Tables 1 and 11.

[a] 1950-1958 = 100.

The share of total resources absorbed by investment is to rise everywhere during the plan period, though to a significant extent only in eastern Germany and Hungary (see Table 1). Moreover, the preliminary indicators of developments during 1959 and such 1960 plans as exist suggest that the early years of the new plan periods will see a more intense investment drive which will later be somewhat relaxed. Thus the annual increments of material consumption in the early years are likely to be below the plan averages, except where overfulfilment of production plans or unexpectedly favourable foreign trade developments make it possible to raise total domestic expenditure above the planned levels.

The average rates of growth of personal material consumption (total and per capita) foreseen in the plans are about the same as during the recent past in Czechoslovakia, and probably eastern Germany, but rather lower in Hungary and Poland. In the Soviet Union, it seems probable that little change is expected, but the available data are insufficient for firm conclusions to be drawn. Considerable improvements in consumers' services, including housing, are also foreseen (see section 6 below).

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[17] The Polish import plan is admittedly something like a "minimum needs" programme, since the authorities foresee an unfavourable development of Poland's terms of trade and difficulty in expanding the export volume by more than 6½-7 per cent a year. Moreover, they assume for the purposes of the plan model that no new credits, beyond those already negotiated, will be available. If events should prove more favourable, the import plans will certainly be revised upwards.

[18] The phrase used in the Directives is "more than 1½ times by 1965 as compared with 1958".

[19] Trade with other socialist countries represented 74 per cent of the total in 1958.

[20] *Pravda*, 18 February 1959.

2. EMPLOYMENT AND PRODUCTIVITY TRENDS

The economic development of the Soviet Union during the early long-term plans, and that of all eastern European countries since the war, owed a great deal to the progressive absorption of dormant labour reserves through the gradual expansion of employment outlets accompanied by extensive programmes of education and vocational training. So long as there exist surplus population in agriculture and urban unemployed (including married women and people of retiring age seeking work) and/or underemployed workers, the achievement of a rapid rate of increase of national product — through the channelling of these reserves of labour into effective employment — is possible even with small increases in per capita capital stock. Moreover, given marked differences in productivity (measured as output per worker employed) among various sectors of the economy, and particularly between industry and agriculture, a still higher overall rate of economic growth can be obtained by switching labour from the less to the more productive branches.[21]

But not all these processes can continue indefinitely. Once the natural ceilings to the economic activity rates

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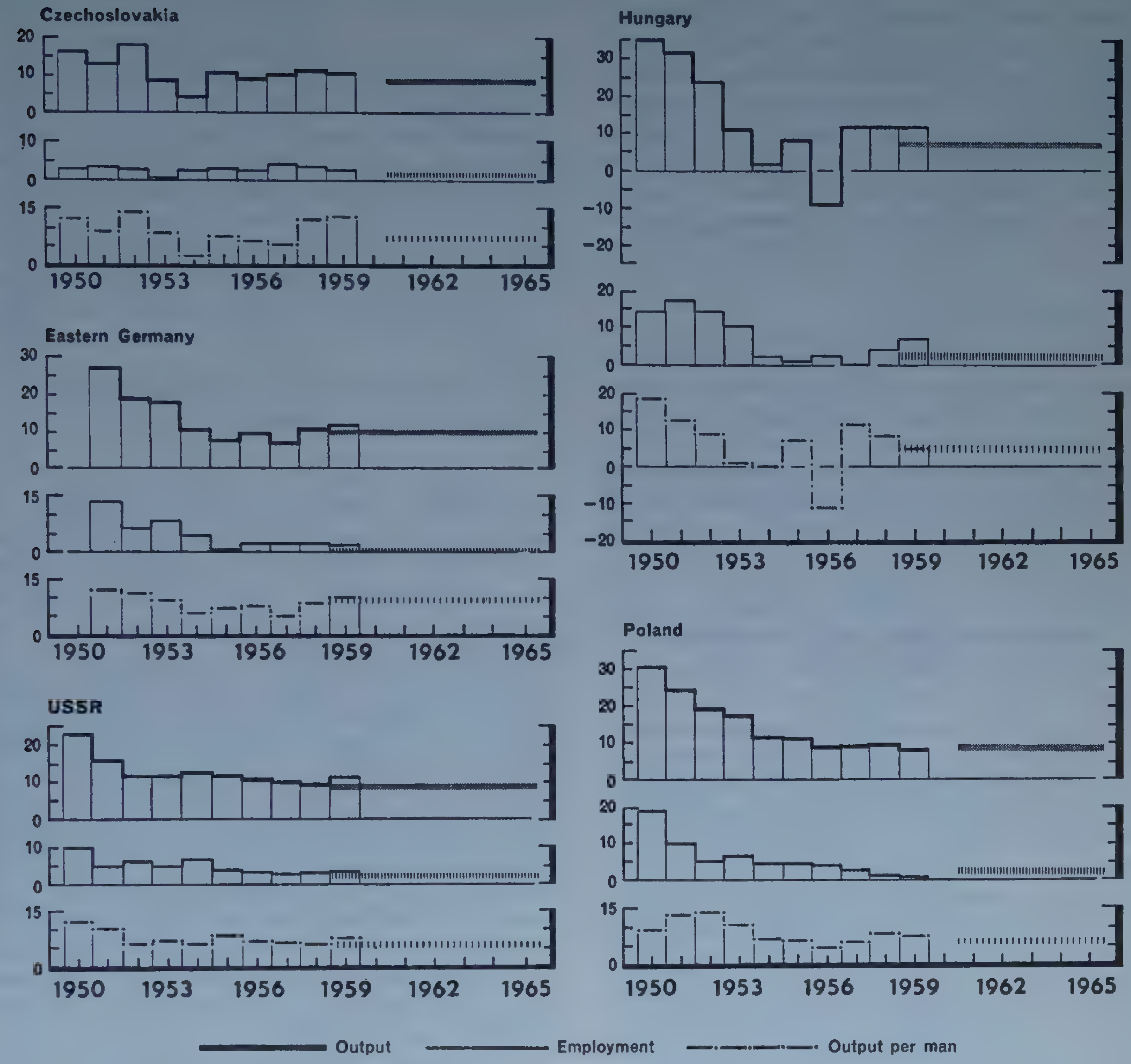
[21] This effect of structural shifts has been magnified in the planned economies of eastern Europe by the relative undervaluation of agricultural output (see "Note on some aspects of national accounting methodology in eastern Europe and the Soviet Union", *Economic Bulletin for Europe*, Vol.11, No.3). In Poland (in 1955) and in Hungary (in 1958) the value of industrial output per employed was respectively five and nearly three times greater than that of agricultural output per employed. For intra-industry disparities, see below.

CHART 1

Trends in industrial output, employment and productivity, 1950 to 1965 Plan

Percentage change from preceding year



Sources: Statistical yearbooks and plan documents.

NOTE. — The shaded lines represent annual averages for the plan periods.

among women and among marginal age-groups are approached, trends in overall employment come to be determined by changes in the population of working age. Sooner or later, further transfers of agricultural population cannot take place without adverse effects on agricultural output, unless accompanied by investment in labour-saving agricultural machinery. In short, productivity of the marginal worker, often near zero in the past, becomes significant throughout the economy, and its best use — more or less obvious in the past — becomes a matter of economic judgement.

Such a situation was reached fairly quickly in Czechoslovakia and eastern Germany and seems now to have been reached in all countries of the area, except perhaps Albania, Bulgaria and Rumania. The new long-term plans have therefore had to be built on different assumptions, from those valid in the past, about the nature of the contribution of labour to further expansion. Increased emphasis is everywhere laid on increases in output per man, to make up for the slow-down in the growth of labour supply. This is to be achieved not only by raising the investment rate and improving the tools of work, but also by better organization (including further diminution of redundant labour), tighter labour discipline, and the benefits of past and future increases in skill — all factors which seem already to be making some contribution to productivity growth in most countries.

Nevertheless, the envisaged increases in labour productivity are in most countries not large enough to compensate for the reduced rates of accruals to the labour supply; and rates of economic growth, both in general and in the industrial sector, are thus less than in earlier five-year plan periods. However, rates of growth of industrial output will generally be little below those of the recent past (see Chart I).

The Demographic Trends

It is clear from the data in Tables 2 and 3 that the trends in the age structure of the population — and in the size of the working-age population in particular — have nowhere been conducive to rapid increases in total employment during the current (1956-1960) quinquennium. The five countries included in the tables exhibit varying trends; but in each of them the increase over the period in the size of the working-age population has been small, and smaller than the rise in the total population [22] so that the " dependency burden " (the number of children and the old per adult) has been increasing.

TABLE 2

Populations of working age in five countries, 1950 to 1965

Thousands

Country and year		Population aged 15-59		Working-age population as percentage of all ages
		Both sexes	Males	
Bulgaria	1946	4 397	2 200	62.5
	1955	4 783	2 410	63.4
	1960	4 976	2 507	62.9
	1965	5 201	2 622	63.1
Czechoslovakia	1950	7 748	3 774	62.8
	1955	7 893	3 862	60.0
	1960	8 072	3 973	58.7
	1965	8 396	4 152	59.0
Eastern Germany	1950	11 214	4 753	61.0
	1955	10 853	4 736	60.8
	1960	10 456	4 651	58.6
	1965	10 014	4 520	55.0
Hungary	1950	5 927	2 838	63.2
	1955	6 095	2 944	61.8
	1960	6 066	2 916	59.4
	1965	6 194	3 002	58.0
Poland	1950	15 565	7 368	62.2
	1955	16 624	7 926	60.4
	1960	17 074	8 208	56.9
	1965	18 366	8 917	56.6

Sources : ECE secretariat projections (see *Economic Survey of Europe in 1957*, Chapter VII) and, for Czechoslovakia, *Demografická Příručka*, 1959.

TABLE 3

Percentage increases over five-year periods in populations of working age (15-59) in five countries

Country	1950 to 1955	1955 to 1960	1960 to 1965
		Both sexes	
Bulgaria	8.8 [a]	4.0	4.5
Czechoslovakia	1.9	2.3	4.0
Eastern Germany	−3.3	−3.7	−4.3
Hungary	2.8	−0.7	2.3
Poland	6.8	2.7	7.6
		Males	
Bulgaria	9.6 [a]	4.0	4.6
Czechoslovakia	2.3	2.9	4.5
Eastern Germany	−0.4	−1.8	−2.9
Hungary	3.7	−1.0	2.9
Poland	7.6	3.5	8.7

Sources : See Table 2. [a] 1946-1955.

The figures in Tables 2 and 3, however, tend to understate somewhat the total net increment to the working age population realized between 1955 and 1960 in such countries as eastern Germany and Poland, where the numbers of new entrants dropped or became constant around 1958-1959; and in Hungary the post-1956 trends have, of course, been influenced by the events of that year. Moreover, the adverse developments mentioned have been softened by improvements in the ratios of men to women in the working-age populations, and these improvements will continue for some time, tending to raise overall activity rates slightly during 1960-1965.

All countries except eastern Germany show a marked improvement in the rate of growth of their working-age populations over the period 1960 to 1965. During the latter part of this period, in particular, their adult populations will be inflated by the arrival of the relatively numerous post-war birth cohorts.[23] Nevertheless, outside Poland, the expected increments in the adult population are not large enough to alter radically the current trends in manpower supply in eastern Europe. In the Soviet Union, low birth rates and high infant mortality rates continued for some time after the war, so that their effects on the numbers of new arrivals into the labour force will last somewhat longer than in the other countries which were belligerents — probably almost until the end of the 1960-1965 period[24] but in this country also the ratio of males to females is gradually improving.[25]

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[22] No post-war data on the age distribution of the population have as yet been published for the Soviet Union.

[23] In all the countries included in Table 2 apart from eastern Germany (and excluding also the Soviet Union), post-war birth rates were not only higher than those during the war but even higher than in the late 1930s.

he extreme situations of Poland and eastern Germany merit further attention. In Poland the net increase of the adult population between 1960 and 1965 will amount to nearly 1.3 million persons (i.e. to twice as much as in all the other countries included in Table 2). However, 85 per cent of this increase will occur in the youngest adult age group (15-19 years), whereas among older adults the increment will be considerably smaller than in the five years 1956-1960:[26]

Population increments in Poland in each five-year period

In thousands

	1956-1960	*1961-1965*
Total population	2 473	2 316
Population aged 15-59	427	1 284
of which :		
aged 15-59	−243	1 079
20-59	670	205

This coming influx of young people, after five years in which their numbers were virtually stationary, will influence the future educational and vocational training programmes, as well as the structure and mobility of the labour force.[27] The number of persons reaching the age of 16 will be almost stationary during the years 1958 to 1961, but will rise by about 50 per cent by 1963 and will continue to increase for some time thereafter.[28] The net additions to the population aged 16-59 will thus be as follows (in thousands):

	1960	*1961*	*1962*	*1963*	*1964*	*1965*	*1961-1965*
Total	35	42	157	219	260	241	919
Males	34	39	98	128	145	144	554
Females	1	3	59	91	115	97	365

Source : Gospodarka Planowa, No. 7, 1959, p. 50.

In eastern Germany the war losses, the low post-war birth rate and mass emigration in the 1950s have all combined to produce a gloomy demographic picture for the period of the new Seven-year Plan. Even on the assumption of no net emigration after 1956, which is the basis of the projections used in this Chapter,[30] the working-age population shows a loss of around 4 per cent over each of the 1956-1960 and 1961-1965 quinquennia. An east German source estimates the expected decline of the adult population from 1958 to 1965 at 650,000 persons.[31] During these years, relatively large numbers of older adults will enter the retirement age, and the ratio of old-age pensioners per 100 members of the active-age population is expected to increase by 1965 to 34.0 (from 25.2 in 1955) and that of children to 41.2 (from 33.0 in 1955). However, as in other countries, some gains in economic activity will follow the improving sex ratio.

Changes in Labour Supply

In the absence of data on economic activity by sex and age, it is difficult to form a precise idea of the possibilities of further utilization of labour reserves in the countries of the area; but the scope seems to be smaller in eastern Germany than in other countries. The overall activity rate (employed as a percentage of the total population) increased in this country from 40.1 per cent in 1950 to 47.3 per cent in 1959, and the ratio of the employed to the total working population from 72.8 per cent in 1950 to 77.5 per cent in 1957. The share of women in the total working population reached the highest figure in Europe after that of the Soviet Union (43.9 per cent) in 1957. There were only 22,200 persons seeking work in 1957, out of which 86 per cent were women who would not change their domicile. The number of school-leavers, which stood at 351,100 in 1953, declined to 241,600 in 1957 and is expected to be 150,000 in 1960, after which date the situation is expected to worsen until 1964 because of the expansion of compulsory ten-year schooling. The author of the article from which these figures are taken concludes that " we have approached the limits of the utilization of labour reserves ".[32] The total working population is therefore expected to decline by between 500,000 and 600,000 persons, or 6-7 per cent, from 1958 to 1965, in contrast with the increase of about 9 per cent over the preceding seven years.

It appears, however, that hopes for some expansion of the labour force as a result of rising activity rates are incorporated in the forthcoming long-term plans of Czechoslovakia and Hungary. Thus in the former country about half of the expected increment to the labour force of 9 per cent (420,000 persons) between 1960 and 1965 is to be recruited among married women; and in Hungary the total working population is to increase over the years 1958 to 1965 by 12 per cent, or faster than in the preceding seven years. This trend, contrasting strongly with developments in other countries (except Albania and possibly Bulgaria and Rumania, for the last two of which no data are available), is explained partly by a decline in the working-age population between 1956 and 1958, and partly by the apparent optimism of the Hungarian planners about the possibility of further mobilizing marginal labour reserves. The ratio of gainfully occupied to the population of working age, which increased from 68 per cent in 1950 to 74.5 per cent in 1958, is expected to reach 81 per cent in 1965, implying that more than two-thirds of the total expected increment in the active population (530,000 persons) in the seven years 1959 to 1965 will come from increased employment of marginal labour. In the Soviet Union the population of working age in the 1959 census was 120 million or 57 per cent of the total, against 102 million or 53 per cent in 1939 (official retrospective estimate). Data on the active population have not been published, but — when presenting the Seven-year Plan to the XXI Party Congress — Mr. Khrushchev indicated 95 million as the expected 1965 figure.[34]

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[24] In this connexion, it may be significant that the next phase in the reduction of working hours is scheduled for the last two years of the Seven-year Plan.

[25] The preliminary results of the 1959 Soviet census of population reveal that with the overall excess of women over men of more than 20 million (114.8 million women and 94.0 million men), the sex ratio is now near to one in the " below 32 years " age group.

[26] The figures are taken from A. Jozefowicz in *Nowe Drogi,* No. 2, 1959 (an article which is partly based on the ECE projections incorporated in the 1957 SURVEY, Chapter VII), reprinted in *Polish Perspectives,* No. 5, 1959.

[27] Both occupational and geographical mobility, since the drive to towns affected in the past mainly young peasants — largely those school-leavers who remained in the towns on termination of their courses.

[28] See *Economic Survey of Europe in 1957,* Chapter VII, Chart 5.

[30] The wave of emigration — which approached at its peak the net figure of 400,000 persons a year — has now declined, in fact, to around 100,000 (net).

[31] A. Knauer, *Arbeit und Sozialfürsorge,* Nos. 13-15, 1959. Between 1965 and 1970 a further decline of 50,000 is forecast; only from 1970 to 1975 will there be a small increase of around 100,000 persons.

[32] A. Knauer, *loc. cit.*

The Polish plan is noticeably less ambitious in this respect. The employment targets of the long-term " perspective " plan (for the years 1961 to 1975) are based on the assumption of no further changes in the percentage of people gainfully occupied in the various age and sex groups. " First, it is assumed that the percentage of young people attending secondary and vocational schools will not have changed by 1975. Further, it is assumed that the percentage of women gainfully employed outside agriculture, which has been rising so far, will become stable after 1960. The latter is based on the fact that the percentage of women gainfully employed outside agriculture, in respective age-groups, corresponds to the situation existing in most industrialized countries. This is the result of the desire on the part of the urban population to raise their living standards by gainful employment of the members of their families. The general rise in living standards, and the high percentage of gainful employment of women already reached, are expected to prevent any further increase in this percentage."[35] Such factors seem likely to be influential in other countries also.

TABLE 4

Trends in over-all employment in five countries, 1951 to 1965 Plan

Percentage changes over the periods shown

Country and coverage	1951 to 1958 Actual	1958 to 1965 Plan
Eastern Germany		
Gainfully occupied[a]	9.4[b]	−(6-7)[c]
Hungary		
Gainfully occupied[d]	8	12
Gainfully occupied outside agriculture[d] . .	21	33
Soviet Union		
Wage-earners (including state farms) . . .	35[e]	22
Czechoslovakia		
Wage-earners outside agriculture (socialist sector)	28.5	11.5
Poland		
Wage-earners outside agriculture (socialist sector)	29.5	19.2

Sources: Statistical yearbooks and plan documents; and *Közgazdasági Szemle*, No. 10, 1959.

[a] The east German employment data exclude some important sectors of civilian employment.

[b] End-1950 to end-1957.

[c] Based on an estimate in *Arbeit und Sozialfürsorge*, No. 15, 1959.

[d] Excluding pensioners and apprentices.

[e] The 1951 figure has been obtained by subtracting 13.9 million wage-earners (i.e. the figure given by A. Notkin, *Voprosy ekonomiki*, No. 5, 1959, as the net increment over the seven years preceding 1958), from the 1958 employment total (exclusive of MTS) given in *Narodnoe khozyaistvo v 1958 godu*, p. 659.

The Hungarian plan foresees a decline of about 15 per cent in agricultural employment over the next seven years, and in Czechoslovakia a fall of about 20 per cent from 1960 to 1965 is predicted. In the Soviet Union the reduction implied by the plans for output and labour productivity in agriculture is about 10 per cent.[36] These targets are clearly based on the expected manpower savings to be derived from collectivization and/or increased mechanization, particularly important in Czechoslovakia where complaints of shortages of agricultural labour have been continuous for some years past, and where the small increase in agricultural employment up to 1956 has been superseded by a downward trend accompanying the intensified collectivization drive.[37] Nevertheless, except in Hungary, the marked slackening of the forthcoming supply of manpower is reflected in the expected future trends in the non-agricultural labour force (see Table 4).

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[34] The ECE secretariat estimated the corresponding 1955 figure as 85 million (see the SURVEY for 1957, Chapter VII, Appendix Table VII E). If this estimate was correct, and since the age- and sex-specific activity rates are not likely to decline from 1955 to 1965, it follows that the share of the working-age population in the total will have markedly dropped by 1965. For reasons mentioned before, it is most likely that this deterioration will be particularly acute in the years 1959 to 1965.

[35] M. Kalecki, *op. cit.*, p. 38 *et seq.* (or p. 13 *et seq.* of English text).

[36] See section 4 below.

In a rather strange contrast with the other countries under review — considering the present inter-country productivity differentials — the Polish plans assume a stabilization of the present volume of agricultural employment until 1975, though they envisage important transfers among rural districts.[38] The reason is, apparently, that the 50 per cent increase in agricultural output planned between 1960 and 1975 would require additional manpower but for the, precisely compensating, introduction of labour-saving machinery. The chief architect of the Polish 1975 "perspective" plan has stated that "This assumption is, of course, very controversial. Many experts expect that the number of people employed in agriculture will rather decline" and, more generally, that "the entire issue of supply of and demand for labour . . . is one of the most dubious items in the plan".[39] This uncertainty stems partly, no doubt, from the fact that the institutional framework of Polish agriculture during the plan period is still uncertain.

In Hungary almost two-thirds of the net increment in non-agricultural employment, of 800,000 persons over seven years, is to go into other sectors than industry and building; and this "non-productive" employment is to expand by as much as 50 per cent, compared with a 19 per cent increase in industry. The share of industrial employment will thus decline by 1965 almost exactly to the level expected in Poland (see Table 5). This novel trend, noticeable to a smaller extent in the Polish plan also,[40] is related to the policy of improving consumers' services, which can hardly be achieved through increased productivity — except perhaps in administration. Moreover, the expected increases in the proportion of children of school-age and of old people in the population, already noted above, necessitate greater investment in education and other forms of social welfare.

TABLE 5

Trends in non-agricultural employment by sectors in Poland and Hungary, 1951 to 1965 Plan

Country and category of employment	1951 to 1958	1958 to 1965	1958	1965
	Percentage change		Percentage distribution	
Poland [a]				
Total wage-earners outside agriculture	30	19	100.0	100.0
of which:				
Industry	33	14	46.4	44.2
Building and construction	18	23	12.1	12.5
Transport and communication	30	16	9.7	9.5
Trade and catering	28	34	11.0	12.3
Communal services	74	45	2.8	3.4
Culture, education, etc. Health services	56	32	11.2	12.4
Administration	..	−10	4.0	3.0
Non-productive services	..	52	0.9	1.2
Other	..	−4	1.8	1.5
Hungary [b]				
Total wage-earners outside agriculture	21	33	100.0	100.0
of which:				
Industry	43	19	49.5	44.1
Building and construction	−12	35	9.4	9.5
Other	11	50	41.1	46.4

Sources: Statistical yearbooks and plans; 1965 data for Hungary from *Közgazdasági Szemle*, No. 10, 1959.

[a] Wage-earners in socialist economy.

[b] Gainfully occupied population.

Productivity versus Employment

The expected declines of rates of growth of industrial employment in five countries, over the period 1959 to 1965 compared with the preceding seven years, are shown in Table 6. In Czechoslovakia and Poland, a similar decline is in prospect for the five years 1961 to 1965 as compared with both the original plan for 1956 to 1960 and the results now expected.[41] The incidence of this decline in the rate of growth of employment varies greatly among the five countries; whereas between 1951 and 1958 the industrial labour force expanded in all countries in very much the same proportion (30-35 per cent), the expectations for the forthcoming seven years range from about 4 per cent in eastern Germany to about 20 per cent in Hungary and the Soviet Union.

In Czechoslovakia, eastern Germany and Hungary this slackening of the growth of employment is to be partly compensated by an accelerated, or maintained, rise in output per worker employed. In the Soviet Union, however, and still more in Poland, industrial labour productivity is planned to increase during the next seven years by a smaller percentage margin than

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[37] In the three years up to the beginning of 1959, the number of "permanent" agricultural workers declined by 231,000 or 13 per cent.

[38] Little progress has been made in the past in smoothing out the wide differences in geographical densities in Poland; the over-population of some southern and eastern regions still contrasts with the chronic lack of agricultural labour in some western and other areas. For the problems of geographical distribution of labour in the Soviet Union, see Chapter IV, section 3.

[39] Kalecki, *loc. cit.* It is noteworthy that some Polish planners seem to be so impressed by the influx of young labour expected after 1963 as to worry about the feasibility of creating adequate employment outlets, rather than to regard this trend as a favourable factor for economic growth.

[40] In Czechoslovakia and in the Soviet Union industrial employment will move more or less in parallel with total non-agricultural employment (see Tables 4 and 6).

[41] The expected fulfilment of the 1956-1960 plans is based on the actual changes during the years 1956 to 1959, and on the 1960 plans.

TABLE 6

Industrial productivity and employment

Percentage increases

	1950 to 1955		1955 to 1960		1960 to 1965 Plan	1951 to 1958 Actual	1958 to 1965 Plan
	Plan	Actual	Plan	Expected			
Czechoslovakia							
Gross output	—	70	59	64	50	100	83
Employment [a]	—	13	14	16	7	20	13
Output per man [a] . . .	—	50	40	42	40	67	62
Eastern Germany [b]							
Gross output	..	111	..	..	—	118	92 *[c]
Employment	..	37	..	..	—	29	4 *
Output per man	..	54	..	..	—	69	85 [c]
Hungary [d]							
Gross output	—	100	27	38	—	74	65-70
Employment	—	51	11	18	—	37	18-24
Output per man	—	32	14	17	—	27	37-40
Poland [e]							
Gross output	—	117.8	49.1	53.0	50.0	129.6	76.5
Employment	—	34.4	23.2	10.6	9.2	33.1	13.5
Output per man	—	62.1	21.0	38.3	37.4	72.5	55.5
Soviet Union [f]							
Gross output	70	85	65	61	—	112	80
Employment	13	28	10	17	—	33	20-24
Output per man	50	45	50	37	—	59	45-50

Sources : Plans, plan fulfilment reports, statistical yearbooks and bulletins.

[a] Workers only (employment figures derived).

[b] Output figures refer to socialized industry, and employment (derived) to productive workers, unless otherwise stated. The 1955-1960 Plan has been superseded by the 1959-1965 Plan and no annual plan has yet been published.

[c] State sector only. The output figure has been estimated from the plan data relating to centrally managed state industry (expected increase 97 per cent) and to local state industry (expected increase 74 per cent) by ascribing weights of 80 and 20 respectively, corresponding broadly to the employment ratio in 1958. Output of all industry is to increase by 88 per cent.

[d] State factory industry; employment refers to workers only.

[e] Output figures refer to socialized industry and employment to workers and employees; output per man derived.

[f] Exclusive of industrial enterprises in collective farms; the 1958-1965 plan figure for productivity refers to workers and employees—all other figures to workers only.

was registered from 1951 to 1958. The net result of these trends is a general slowing-down of rates of increase of industrial production, relatively greatest in Poland and smallest in Hungary, and some narrowing, during the plan periods, of the past disparities between national rates of growth.

However, these long-term trends, relating to comparisons of conditions prevailing at the beginning and at the end of each period, hide important yearly fluctuations and also give an exaggerated impression of impending changes compared with the recent past. Thus, declines in rates of growth of output and employment, in Czechoslovakia and Poland for instance, are less dramatic when their 1961-1965 plans are compared with the 1956-1960 trends (see Table 6); and the data presented in Chart I indicate that the rates of growth foreseen after 1960 are seldom very different from those prevailing currently or in the very recent past.

The planned increases in output per man shown in Table 6 tend to understate the real improvements expected in productivity since, in all the countries under review, some shortening of the working week is to take place.[42] In Czechoslovakia, for instance, where the average working time in industry is to be reduced by nearly 10 per cent, the productivity rise planned from 1960 to 1965 amounts to 51 per cent, when measured in terms of output per man-hour, compared with about 40 per cent on the simple basis of output per man. Academician Strumilin has stated that the Soviet plan calls for an 80 per cent rise in productivity per man-hour in industry between 1958 and 1965.[43]

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[42] In Czechoslovakia the plan foresees the reduction of the working week in general to 42 hours and the introduction of a five-day week " where this is economically and operationally feasible ". In Hungary workers labouring under difficult conditions (around 26-30 per cent of planned employment in industry and building in 1965) will see their hours reduced to 36-42 per week. By 1961 the 48-hour week now prevailing in eastern Germany in commerce, health services and administration will be reduced to 45 hours, and from 1962 onwards the introduction of a 42-hour week will commence for categories working under difficult conditions. In the Soviet Union a 40-hour working week for basic categories will be in force (with further allowances for minors and special categories) by 1962, and plans foresee further improvements after 1964 leading to a basic 35-hour week by 1968. The Polish " perspective " plan foresees the introduction of a 40-hour week before 1975.

Changes in the structure of industrial employment can have a formidable impact on productivity index numbers calculated from " global " output data,[44] but the information needed to assess the quantitative effect of such changes is not available for the countries under review.

Among the five countries under review, two — eastern Germany and Czechoslovakia — foresee some decline of employment in building and construction, and one — the Soviet Union — the maintenance of the present level (see Table 7). Trends in the output of this sector vary greatly among the countries and, outside eastern Germany, seem to be largely the function of changes in employment. Thus in the Soviet Union planned output increases at a rate about half of that experienced over the preceding seven years, with productivity increasing at very much the same rate; in Poland the rate of increase of output will be somewhat higher and in Czechoslovakia considerably lower, in 1961-1965 than during 1956-1960, but in both countries the past rate of growth of output per worker will be maintained. In Hungary, chiefly as a result of expected transfers from agriculture, employment in construction, like that in industry, will go up during the plan period by a relatively larger margin than in other countries.

TABLE 7

Productivity and employment in building and construction

Percentage increase over the period shown

	Plans 1958 to 1965	Plans 1960 to 1965	Previous corresponding period (1951 to 1958 or 1955 to 1960)
Czechoslovakia			
Gross output	—	50	70
Employment	—	−2	10
Output per man . .	—	53	54
Eastern Germany			
Gross output	108	—	63.3
Employment	−8	—	1.9
Output per man . .	127 [a]	—	60.3
Hungary [b]			
Gross output	75	—	40
Employment	33	—	−9
Output per man . .	32	—	54
Poland			
Gross output	—	44.3	32.1
Employment	—	15.6	6.7
Output per man . .	—	24.8	23.8
Soviet Union			
Gross output	60-65 [c]	—	119.5
Employment	— [c]	—	28.4
Output per man . .	60-65	—	70.9

Sources : Plan documents and statistical yearbooks.

[a] State sector only.

[b] The whole building industry.

[c] No figure has been given in the plan directives, but V. A. Kucherenko stated at the June 1959 meeting of the Central Committee of the Party that employment in building and construction will remain at the present level of about 5 million workers.

The Means for Productivity Improvement

The relative weights, in any given circumstances, of the numerous factors influencing labour productivity are almost impossible to determine numerically, though such an attempt has apparently been made in Czechoslovakia.[45] Nevertheless, all five countries stress, in qualitative terms, expected gains from a number of factors, though the emphasis varies somewhat from country to country. The factors in productivity growth can be divided into two large groups — those implying better utilization of existing capital equipment and those resulting from installation of new and more efficient tools of work; and the former group includes elements both of enterprise organization and of inter-enterprise relations.

Productivity campaigns were launched in Hungary, Poland and the Soviet Union in 1959, and the Polish plan spells out in some detail the steps to be taken at enterprise level to improve the organization and intensity of work. These encompass further reforms of the wage system, on the lines followed during the last few years in most countries of the area — such as elimination of loose " non-technical " work norms, increase in the share of basic wages in total earnings, better allocation of workers to skill-groups etc.; and they also include special tasks assigned to trade unions and workers' self-governing bodies aiming at eliminating violations of labour discipline, waste of materials, thefts, frauds and labour redundancies.[46] The urgency of the need for reduction of costs through tighter controls and appropriate incentives to workers and management, is stressed everywhere. Similarly, all plans at least mention the expectation of benefits from increased skills, and in eastern Germany the share of skilled workers in the total is expected to increase significantly.[47]

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[43] In a letter to *The Times* (London), 31 December 1958.

[44] See the SURVEY for 1958, Chapter I, section 1. In a " global " output index the weights of processing branches are inflated as compared with an index based on " value added ". The possible effects can be appreciated from the fact that in Poland the value of gross output per man varied in 1958 from around 50,000 zlotys in mining and in the building materials industries to 112,000 zlotys in heavy engineering and in the chemicals industry, and as much as 313,000 zlotys in the food industry.

[45] The fulfilment of the productivity plan is to involve in this country the following contributions: new techniques, 69 per cent; better organization of production and changed composition, 11 per cent; increased qualifications, 17 per cent; other effects, 3 per cent (*Economic News Service*, No. 12, Prague 1959). In the Hungarian building and construction industry (state and co-operative) output per worker is to increase by 37 per cent from 1958 to 1965; and it has been estimated that a 21 per cent increase is to be derived from mechanization, a 14 per cent increase from improved organization and a 2½ per cent increase from the use of prefabricated elements (*Közgazdasági Szemle*, No. 11, 1959, p. 1178).

Considerable progress has been made in most countries of the area during the last two or three years in improving both the level of supplies of raw materials and energy and inter-enterprise flows generally; [48] and the future scope for fuller utilization of existing capacity through this avenue may therefore be less than in the past, though both the Hungarian and the Polish plans assume further gains. The outcome will clearly be partly a function of the ambitiousness of the plans themselves; and over-ambitious targets may be self-defeating if they reintroduce bottlenecks in raw material supplies.[49] However, all the plans foresee smoother inter-enterprise flows and this, combined with increased specialization (particularly in production of semi-manufactures), is expected to contribute significantly to smoother functioning of the economies. In eastern Germany, moreover, increased standardization of products and concentration of enterprises is expected to improve efficiency.

However, the bulk of the expected productivity gains is apparently to be derived from the modernization or replacement of obsolete machinery in existing plants and from the installation of the most modern equipment in new enterprises.[50] This development is to be accompanied and strengthened, particularly in the Soviet Union and eastern Germany, by the introduction of labour-saving machinery — including automation of some processes — on a large scale. The Seven-year Plan Directives state that "The overall mechanization and automation of production processes are the chief, the decisive means by which further technical progress in the national economy is to be ensured, providing the basis for further advancements in the productivity of labour . . .".

These objectives are reflected in the investment policies and production targets, discussed in sections 3 and 4 below. The overall volume of industrial investment is planned to expand considerably everywhere, and there is a growing tendency to allocate investment on the basis of cost and productivity considerations. The share of machinery and equipment in total productive investment is to increase in relation to construction — reflecting, in part, the increased emphasis on re-equipment of existing factories and plans for quicker replacement of obsolete machinery in future [51] — and the shortening of the period of maturity of investment will contribute to productivity growth in most countries.

The successful realization of the plans for raising labour productivity through provision of more efficient tools of work necessitates both increased provision for renovation and modernization of equipment (by increasing the amortization funds at the disposal of enterprises or by other means) and, secondly, the creation of appropriate economic inducements for enterprise managements to replace and re-tool. The upward revaluation of fixed assets, which either took place recently (in Czechoslovakia) or is currently being prepared (in Poland and the Soviet Union) is one step tending to increase provision for amortization; and in the Soviet Union this is to be reinforced by increases in amortization rates following the acceptance of the idea of technological obsolescence (" moral depreciation ") of capital.[52] According to preliminary estimates,[53] that part of amortization charges in Soviet industry earmarked for expenditure on renovation will be increased by more than 50 per cent (the average rate will increase from 2.32 per cent at present to about 3.5 per cent): and the reform foresees a more realistic differentiation between industrial branches to accord with the incidence of obsolescence of equipment.[54] In

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[46] Resolution of the Third Party Congress, *Nowe Drogi*, No. 4, 1959, p. 710.

[47] This is not necessarily true of all other countries, despite the general tendency for the numbers of skilled workers to increase. Wherever the expansion of employment is to be relatively large and dependent on the recruitment of married women or on a large influx of unskilled peasants into industry — as in Hungary, for example — the average level of skill may change little.

[48] See the SURVEY for 1958, Chapter I, section 4, and subsequent *Economic Bulletins*.

[49] In this connexion, the east-German plans for more than doubling output in heavy engineering and in the building materials industries and for raising general engineering output by 148 per cent and electrical engineering by 166 per cent over the seven years look extremely ambitious.

[50] See *Economic Bulletin*, Vol. 11, No. 3, p. 35, and section 3 below.

[51] In Hungary, where the expansion of industrial investment is to be relatively small, the plan directives state hopefully that " A rise in the technical standards (of industry) can be accomplished not only by investing large amounts, but advantage has also to be taken throughout industry of the possibilities existing everywhere of rationalization, small investment and replacement." In this country, it is planned to reduce the average age of engineering tools from 18 to 13-14 years and thereby to increase output per unit of factory space by 50 per cent.

[52] In contrast with the theory followed in the past that obsolescence of capital is a phenomenon restricted to capitalist societies.

[53] A. Efimov in *Voprosy ekonomiki*, No. 9, 1959, p. 13.

[54] The rates of amortization intended to provide for capital repairs should, on the other hand, decline in most branches, but this may be offset by the principle of treating in the future the so-called " medium repairs " as " capital " rather than " current " repairs (Efimov, *loc. cit.*).

Hungary, a different method of financing modernization has been adopted. Rather than increasing amortization rates, additional funds are provided within the framework of the central investment plan for major schemes of replacement of obsolete equipment.

But although the reforms of wage and premium systems and increased rates of transfers to " enterprise funds " during the last few years in all countries of the area have increased the interest of workers and management in the 'success' of their enterprise, they have helped little, if at all, to overcome the reluctance of the managers to introduce radical changes in technical equipment, except perhaps where these will improve the quality of a product meeting effective competition. Installation of new machinery on a large scale or the overhaul of existing equipment is likely to upset the rhythm of production, necessitate re-training of workers, and in general affect adversely the finances of the enterprise for some length of time. Moreover, subsequent revisions of production plans and work norms may considerably reduce the long-run 'profitability' to the workers and management of such changes. The situation becomes particularly difficult whenever technical progress implies reductions of staff.

In Poland proposals for dealing with this problem include *inter alia* the introduction of artificially inflated prices for newly launched production; increases in the share of profits to be diverted into the enterprise fund for some time after the modernization has been completed; removal from the production plan of goods the output of which has been temporarily affected by renovation of equipment, and the covering of financial losses sustained by the enterprise from some central fund.[55]

In Czechoslovakia, where a series of reforms has been introduced into the system of planning and financing technical progress, the main step has been the creation of a Fund of Technical Development at the enterprise level, financed mostly by the enterprise itself at a differentiated rate determined by the central authorities. To compensate for losses to the enterprise fund, the whole cost of work connected with the introduction of new techniques is to be included in the value of the global product of the enterprise.[56] In the Soviet Union the new regulations on the premia to be paid to management of enterprises, effective from October 1959, make it a condition for payment that the plan for introduction of new techniques is fulfilled.[57] Enterprises have also been authorized to create revolving funds, fed from the savings resulting from modernization etc., which may be used to finance the further introduction of new technology. An extension of bank credit for modernization schemes is also envisaged.

TABLE 8

Changes in industrial marginal capital/output ratios and in their components

Country	Capital/output [a]			Capital/employment	Output/employment
	Millions of national currency		Index numbers, preceding period = 100		
	Plan period	Preceding period			
Czechoslovakia .	2 388	1 755	136	384	282
Eastern Germany	652	444	147	1 500	900
Hungary [b] . . .	837	958	87	185	212
Poland	3 717 [c]	3 709	100	191	191
Soviet Union . .	11 888 [d]	8 699 [d]	137	235	173

Sources : National plans and statistical yearbooks, and Table 9.

NOTE. — Plan periods are as indicated in Table 7, except for Hungary (here 1961-1965) and data are mid-points of ranges when presented in this form.

[a] Expenditure on industrial investment per unit-equivalent of output increase. The value figures are not comparable between countries. (See also footnote 60.)

[b] On Hungarian data see Appendix B, notes to Table 1.

[c] Based on the first version of the investment plan (see *Gospodarka Planowa*, No. 1-2, 1959); investment outlays have been somewhat increased in the Plan Directives, resulting in an increase in the capital-output ratio of around 1.5 per cent in 1960-1965 compared with the preceding five years.

[d] The sum of investment in industrial branches (including construction) enumerated in Plan Directives, which cover around 85 per cent of total industrial investment.

The Capital Cost of the Planned Expansion of Industrial Output

Even though the planned rates of economic growth are everywhere somewhat lower than in the recent past, and markedly lower than in the earlier stages of industrialization, their achievement will require tremendous investment efforts. In the industrial field, in particular, the plans for countries other than Poland and Hungary foresee investment outlays per additional unit of gross product considerably greater than in preceding years. The Polish plan assumes an unchanged marginal capital/output ratio and Hungary a decrease, but the investment and output targets in the other countries indicate considerable increases in this ratio (see Table 8).

Several of the factors discussed above — and particularly falling rates of growth of industrial labour supply in most countries — support expectations of increases in capital/output ratios in future; and the timing of slow-maturing investment projects can greatly affect ratios calculated for relatively short periods of time. Moreover, the overall ratios shown in Table 8 are influenced by structural changes in industrial output, since capital/output ratios vary greatly from branch to branch. The data in Table 10 below show average capital/output ratios for the Soviet Union in 1957 of 0.90 for producers' goods and of 0.18 for consumers' goods, together with wide variations within each category. Given the priority commonly accorded in the economies under review to faster development of producer-goods than of consumer-goods production, and the fact that the capital intensity of basic and heavy industries is greater than that of light industries, there is an inherent tendency for the overall marginal capital/output ratio in industry to increase over time.[58] This effect is greatly strengthened by the particular importance attached, in the Soviet Union and elsewhere, to the development of basic industries during the forthcoming plan periods (see sections 3 and 4 below).

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[55] S. Gordon in *Zycie Gospodarcze*, No. 48, 1959. The first two remedies were subsequently endorsed in Mr. Gomulka's speech to the Fourth Plenary Session of the Central Committee of the Polish United Workers' Party, held in January 1960 and devoted entirely to questions of technical progress in industry and construction (*Trybuna Ludu*, 21 January 1960).

[56] G. Pisarski in *Zycie Gospodarcze*, No. 48, 1959.

[57] *Sotsialisticheski trud*, No. 10, 1959, p. 63. See also Chapter II, section 4.

Some of the plans may nevertheless exaggerate the scale of the increases that would be justified by the above considerations. Plan directives are built largely on the statements submitted by enterprises, groups of enterprises and ministries, of their investment requirements and of the possible scope for output expansion. It is recognized that it is natural for enterprises and ministries to ask for large funds and to promise as little as possible in terms of output, but this tendency may not have been fully offset at the initial stages of plan formulation by the counter pressures of the central authorities.[59] To the extent that this is so, some of the new plans may hide reserves in the form of under-estimation of probable returns to the planned inputs of capital.

To see better the connexion between efficiency of capital and labour productivity, marginal capital/output ratios may be broken down into indicators of marginal capital intensity and marginal labour productivity (see Table 8), since the volume of new investment per unit of value of additional output [60] can be written as:

$$\frac{\text{Volume of investment}}{\text{Increase in employment}} : \frac{\text{Increase in output}}{\text{Increase in employment}}$$

It follows that the capital/output ratio increases if capital intensity increases faster than labour productivity. For the capital/output ratio to decline, on the other hand, the new investment must contribute more to the improvement of labour productivity than to the improvement in the ratio of fixed assets per worker.

The impact of new investment on these marginal ratios varies greatly among the five countries, but all the plans embody significant increases in both components. Except in Poland and Hungary, however, capital intensity increases faster than labour productivity during the planned periods as compared with the past. Attempts to mechanize and automatize to save labour are costly, and tend — in the initial stages of their introduction at least — to lower the returns in output per unit of new capital.

There is, of course, no reason for dismay if capital/output coefficients fluctuate over time in a developing economy. As A. Notkin points out, effectiveness of new investment is only one of the many factors affecting the rate of growth: " For example, if strained labour resources in the national economy can be overcome only by more capital intensive techniques, then in some cases (particularly when the replacement of manual labour on a large scale is envisaged) highest rates of growth can be obtained by simultaneous increases in both the technical equipment of workers and the capital-to-output relations." [61]

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[58] To illustrate this point M. Bor (*Voprosy ekonomiki*, No. 7, 1959, p. 49) quotes the shares of amortization funds in total production costs in various industrial branches in 1955, showing that they vary from more than 40 per cent in oil and natural gas to 4-5 per cent in heavy metallurgy and engineering and to less than 1 per cent in textiles, leather and most food processing industries.

[59] See Academician S. Strumilin in *Literaturnaya gazeta*, 2 December 1958. After the publication of the plan directives many Soviet enterprises and economic regions (e.g. Vladimir, Sverdlovsk) have undertaken to fulfil their output plans ahead of the time-schedule through, *inter alia*, a better utilization of capital. A. Notkin states also that the first corrections to the plan directives have somewhat lowered investment requirements (*Voprosy ekonomiki*, No. 5, 1959). Another way to increase the returns on new investment is to lower the cost of planned projects: in the fulfilment of an undertaking made at the XXI Party Congress, the estimated cost of planned electric power stations was cut by 6.4 billion roubles; the saving could be used to construct additional stations with a capacity of over 6 million kW (*Gidrotekhnicheskoe stroitelstvo*, No. 7, 1959, p. 2). A similar review was made in the Soviet building-materials industry (see *Promyshlennoe stroitelstvo*, No. 7, 1959, p. 2). Revision of the cost structure of planned investment in the heavy industry of Poland has resulted in savings amounting to 2.2 billion zlotys or about 9 per cent of originally planned investment in this branch (*Trybuna Ludu*, 8 January 1960).

[60] Since trends in output values have not always been available, the actual computations shown in Table 8 are based on percentage changes of output over relevant periods. To assure comparability of relative output increases, the year preceding the new long-term plans was taken as a hundred for both the future and the past trends and the number of " points " between the terminal values was counted. The same method was applied to changes in employment.

[61] A. Notkin, *loc. cit.* M. Rakowski also puts forward a convincing argument that, given the material and human resources available, maximum rate of growth can be attained by optimal labour productivity and optimal capital intensity which are not identical with maximum labour productivity and minimum capital/output ratio (*Gospodarka Planowa*, No. 10, 1959).

3. The Investment Plans

(a) The Soviet Seven-year Plan

The Rising Capital/Output Ratio

Mr. Khrushchev has stated that total investment in the Soviet Union during the seven years 1959 to 1965 will be " nearly 3,000 billion roubles ". However, this figure has not yet been clearly defined or related to any known past magnitude. The only comparable figures for the past and the plan so far published are for centrally planned state investment, which is to rise from a total of 1,065 billion roubles during 1952-1958 to 1,940-1,970 billion during 1959-1965, and for these totals *plus* collective-farm investment (rising from 1,195 billion roubles to 2,290-2,320 billion). However, it is fairly certain that the ' unidentified margin ' (of something like 700 million roubles during the plan period) is larger in relation to these totals, and also includes a higher proportion of non-productive investment (mainly because of the foreseen growth of housebuilding out of private and enterprise resources), than in the past. The figures in Table 11 below thus suggest that the planned rise in productive investment — most directly related to the expansion of national (material) product — will be of the order of 90 per cent or more.

The plan thus implies a rise of about one-third in the overall marginal capital/output ratio (relating productive investment to growth of material product) compared with the ratio for the preceding seven years,[62] and an even greater rise has been avoided only by allotting a larger share of capital resources than before to the re-equipment of existing factories, and a smaller share to new construction. A Deputy Chairman of the USSR Gosplan has listed the main factors in the preference for investment in existing plants over new construction.[63] First, building resources are in some areas inadequate for new construction; secondly, staff of existing enterprises can help install equipment, whereas new plants call upon building labour; thirdly, the 40 per cent or so of the cost of a new enterprise represented by buildings does not produce output — it is the machinery installed which produces; fourthly, capacity extensions can open bottle-necks in existing technological processes and thereby substantially raise output at the plant; fifthly, many modernization schemes have a low marginal capital/output ratio; and finally in enterprises already operating the skilled staff and other external economies are at hand to support early increments in output.

The following data are available on the percentage of the Seven-year Plan increments of production which will originate in new plants:

Petroleum products	45	Metallurgical coke	29
Pig iron	23	Refractories	50
Crude steel	25	Furniture	35
Rolled steel	21	Veneer	68
Tubes	7	Textiles	43
		Dairy products [a]	40

Sources : Neftyanoe khozyaistvo, No. 1, 1959, p. 10; *Planovoe khozyaistvo*, No. 3, 1959, p. 39, and No. 9, 1959, p. 4; *Derevoobrabatyvayushaya promyshlennost*, No. 11, 1958, p. 1; *Tekstilnaya promyshlennost*, No. 1, 1959, p. 3; *Molochnaya promyshlennost*, No. 11, 1959, p. 3.

[a] RSFSR only.

In some branches of industry major technological changes during the plan period imply considerable investment in new construction and completely new types of machinery for small immediate returns in output. The marginal capital/output ratio in light industry is apparently to double under the plan, as compared with the preceding seven years (see Table 9), partly because of a shift from natural and viscose raw material to polymer bases in silk weaving; and reviews since publication of the plan have raised the re-equipment programmes in the textiles branch still further without altering output targets:

New installations during the Seven-year Plan

	Spindles	*Looms*
Original Directives [a]	6,474,000	150,300
Proposed at June Plenum [b]	7,500,000	155,000
Decreed in December 1959 [c]	7,700,000	157,000

[a] *Vestnik statistiki*, No. 4, 1959, p. 95.

[b] Report by Mr. Kosygin to the Party Committee, *Pravda*, 26 June 1959.

[c] Decree published in *Izvestia*, 10 December 1959.

Similarly, the change in the pattern of output and investment in the chemicals industry, noted below, tends to raise the capital/output ratio for this branch in the plan period; though a long-term saving in overall investment cost per unit of industrial output is estimated to result from the substitution of plastics for metals in certain uses.

In metallurgy itself the rise in the marginal capital/output ratio, indicated by the figures in Table 9, seems to be the result of two contrasting tendencies — a concentration of 59 per cent of all investment in these branches on the re-equipment of existing enterprises

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[62] The investment aspect of the Soviet Seven-year Plan should be seen against the reasons for its supersession of the Sixth Five-year Plan. The Directives for that plan, approved by the XX Party Congress, envisaged a gross state investment of 990 billion roubles, or the maintenance of the marginal capital/output ratio for the whole economy exhibited during the previous five years (see Chapter IV, p. 18). When the administration came to formulate the detailed implementation of the Directives, the investment needed to obtain the output goals was estimated at 372 billion roubles more than forecast, i.e. the marginal capital/output ratio would have to rise by more than one-third. (See I. Kulev, *O dalneishem sovershenstvovanii planirovania i rukovodstva narodnym khozyaistvom*, Moscow 1957, p. 7).

[63] V. Kurotchenko, *Planovoe khozyaistvo*, No. 9, 1959, pp. 3-14.

TABLE 9

Indicators of changes in sector capital/output ratios under the Soviet Seven-Year Plan

Industrial branches	Units of cols. 3-5	Production	Increase in production		Investment in billions of roubles		Capital/output indicators [a]		Change in ratio
		1958	1952 to 1958	1959 to 1965	Totals 1952-1958	Totals 1959-1965	1952-1958 col. 6 / col. 4	1959-1965 col. 7 / col. 5	col. 9 / col. 8
1	2	3	4	5	6	7	8	9	10
Total industry	Index points (1958 = 100)	100	53	80	462	948	8.7	11.89	137
of which :									
Ferrous metallurgy	Million tons of steel	54.9	23.5	33.6	40.8	100	1 736	2 976	171
Chemicals	Index points (1958 = 100)	100	61	200	19.9	102.5	326	512	157
Oil and natural gas	Million tons of standard fuel	196	128	325	72.2	171.5	564	528	94
Coal	(7,000 Mcal per ton)	375	153	77	61.2	76.5	400	993	248
All fuels		571	281	402	133.4	248.0	475	617	130
Electric power	Billion kWh	233	129	277	75.1	127	582	458	79
Engineering	Index points (1958 = 100)	100	52	100	65.5	118	1.26	1.18	94
Production of consumers' goods		100	49	63.5	40	82.5	816	1 289	158
Cotton	Million metres	5 978	1 032	2 200	3.65	7.81	3.53	3.53	101
Silk		845	640	671	0.74	7.09	1.16	10.56	910
Wool		303	124	200	1.31	3.84	10.58	19.22	182
Knitwear	Million garments	495	230	453	0.63	1.85	2.73	4.09	150
All light industry	Billion roubles	152.8	76.4	83.3	13	33	0.17	0.40	233
State housing construction	Million sq. m.	. .	207	440 [b]	208	377.5	1005	858 [b]	85 [b]
Agriculture	Index points (1958 = 100)	100	40	70	246	500	6.2	7.1	115
Transport and communications	Billion ton/km of goods haulage	1 605	805	928	. .	. .	133	228	171 [c]
	Traffic units (billions)	1 811	901	. .	107.4	211.5	119	. .	. .
of which :									
Railway transport	Billion ton/km	1 302	625	523	. .	. .	95	215	226 [c]
	Traffic units (billions)	1 460	684	. .	59.3	112.5	87	. .	. .
Other transport and communications	Billion ton/km	303	180	405	. .	. .	267	244	91 [c]
	Traffic units (billions)	351	217	. .	48.1	99.0	222	. .	. .

Sources : Revised from article by A. Markowski and M. Rakowski in *Gospodarka Planowa* (Warsaw) No. 5, 1959 by reference to: *Narodnoe khozyaistvo SSSR v 1958 godu*; *Stenografichesky otchet, Vneocherednoi XXI Syezd KPSS*, Moscow 1959; Mr. Khrushchev's speech at the XXI Party Congress, Moscow 1959; *Planovoe khozyaistvo*, No. 7, 1959, p. 35 (for oil, natural gas and coal); *Tekstilnaya promyshlennost*, No. 1, 1959, pp. 1-9 (for cotton, silk, wool and knitwear) and Table 11. Industry includes construction, output of which was assumed to rise as fast as that of industry.

[a] The units can be deduced from preceding columns (e.g. billion roubles per index point for total industry; roubles per thousand kWh for electric power, etc.).

[b] This figure could not be verified from Soviet sources.

[c] This figure must be treated with caution as output is freight only.

and the expectation of more efficient use of these capacities in future than in the past, more than offset by the fact that the new capacities to be established with the remaining 41 per cent of investment will yield only a very small part of their eventual returns during the plan period.[64] In electricity generation, by contrast, quick returns to investment in thermal plants help to reduce the future capital/output ratio as compared with the past (see below).

Very approximate indications of the changes in marginal capital/output ratios in various branches of activity are provided by the figures in Table 9 and other possible explanations for them are suggested, in some cases, by the plans reviewed below. The rise in the ratio in agriculture — which would even approach 25 per cent if output were calculated net of duplication of fodder — tends to confirm other indications that building must account for a large share of the increment of agricultural investment (see section 4). The rise in the ratio for all industry follows a period in which — as a result of such factors as the maturing of earlier investments, improving flows of energy and materials and changes in the structure of output — the ratio of the industrial capital stock to gross output appears to have fallen:

Ratio of fixed capital stock to gross output in Soviet industry at "1926/27 prices"

1937	*1940*	*1945*	*1950*	*1955*	*1956*
0.60	0.60	0.64	0.52	0.49	0.49

Source : As for Table 10.

The authors of the above calculations point out that changes in the structure of output can markedly affect these ratios (see Table 10) and that the preference given to expansion of basic industries must tend over time to raise the overall capital/output ratio.

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[64] The figure of 59 per cent is from V. Kurotchenko, *Planovoe khozyaistvo*, No. 9, 1959, p. 4 (who also quotes corresponding percentages for other industries — 47 per cent in oil refining and over 75 per cent in engineering). Earlier — before the June Plenum of the Central Committee — it had been stated that 67 per cent of investment in ferrous metals and 60 per cent of that in non-ferrous metals would be in existing enterprises (*ibid.* No. 3, 1959, p. 12, and No. 6, 1959, p. 14).

TABLE 10

Ratio of fixed-capital stock to gross output in selected Soviet industries in 1957

Roubles of fixed assets (undepreciated but at 1955 replacement cost) per rouble of gross output at 1955 prices

Classified by origin	
All industry and mining	0.49 [a]
Mineral extraction	1.89
of which : Non-ferrous metals	3.2
Timber felling	0.64
All fabricating	0.48
Fabrication of materials of industrial origin	0.79
of which : Primary processing	1.14
Further fabrication	0.54
Fabrication of materials of agricultural origin	0.17
of which : Primary processing	0.21
Further fabrication	0.13

Classified by use	
Producers' goods	0.90
— Equipment, etc.	0.62
— Current inputs	1.00
of which : Fuel and energy	2.26
Raw and other materials	0.70
Consumers' goods	0.18
of which : Processed food	0.19
Textiles, clothing and footwear	0.14
Consumers' durable goods	0.27

Source : Computations of Ya. Kvasha and V. Krasovsky, *Voprosy ekonomiki*, No. 8, 1959, pp. 8-12.

[a] 1956, computing both capital and gross output at "1926/27 prices".

Discussions in the Soviet Union following publication of the Plan have increasingly recognized these tendencies, and have stressed the need for economy in the use of investment resources. Immediately after the XXI Party Congress the State Committee for Construction (the USSR Gosstroi) undertook a review of building projects scheduled for the regional economic councils (*sovnarkhozy*) while the Ministries pruned their own construction lists;[65] and the Plenum of the Party Central Committee in June 1959 was devoted to this problem. It is estimated that the share of equipment in centrally planned gross investment will rise from 30 per cent during 1952-1958 to 33 per cent during 1959-1965 and that the share of building and construction in the total will fall from 63 per cent to 61 per cent.[66]

The Distribution of Investment

The regional distribution of investment — tending to raise the share in total capacity and output of the eastern areas of the country — is discussed in Chapter IV. The sector distribution is indicated by the figures in Table 11, though these data exclude collective farm investment, non-state dwelling construction and "de-centralized investment" to be carried out by enterprises and public authorities outside the state plan.

Investment in housing is, in fact, expected to rise very fast, new construction over the seven years being planned at the equivalent of some 60-80 per cent of the 1958 housing stock (see section 6 below); and agriculture and, to a lesser extent, transport are also expected to receive increased shares of total investment resources. Total investment in state and collective farms

TABLE 11

Distribution of centrally planned state gross investment in the Soviet Union, seven-year totals 1952-1958 and 1959-1965 [a]

Billions of roubles and index numbers

Sector and branch	1952-1958	1959-1965	1959-1965 Index, 1952-1958 = 100
Industry [b]	461.5	936-960	203-208
of which :			
Ferrous metallurgy [c]	40.8	100	245
Chemicals	19.9	100-105	502-528
Crude oil and natural gas	72.2	170-173	235-240
Coal	61.2	75-78	122-127
Electric power	75.1	125-129	166-172
Engineering	65.5	118	180
Timber and paper	25.3	58-60	229-237
Light and food industries	40.0	80-85	200-212
Construction and building materials industries	61.5	110-112	179-182
All sectors	1065.0	1940-1970	182-185
of which :			
Industry [b]	461.5	936-960	203-208
Rail transport	59.3	110-115	185-194
Other transport and communications	48.1	99	206
Agriculture [a]	116	150	129
Housing and communal construction	208	375-380	180-183
Culture, health and education	46.0	80	174
Other [d]	126.1	190-186	151-148

Sources : Narodnoe khozyaistvo SSSR v 1958 godu, pp. 82-83, 622-623; and *Voprosy ekonomiki*, No. 2, 1959, p. 23.

[a] The figures in the table exclude costs of estimating and projecting, prospecting, capital repairs and investment in state-farm livestock. During 1952-1958 total investment in the national economy, excluding the items just mentioned and also private dwelling construction, amounted to 1,315 billion roubles (*Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 82-83 and 619). The total (presumably including private dwelling construction) planned for 1959-1965 has been stated to approach 3,000 billion roubles; but neither the exact coverage of this figure nor any comparable total for 1952-1958 has been published. It is known, however, to include 350 billion roubles of investment in collective farms, compared with 130 billion during 1952-1958.

[b] The sum of the branches listed.

[c] Including iron-ore mining.

[d] Residual including non-ferrous metallurgy, printing industry and trade.

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[65] See footnote 59.

[66] *Planovoe khozyaistvo*, No. 3, 1959, p. 12.

is planned to rise from nearly 250 billion roubles in 1952-1958 to 500 billion; and the available data on planned deliveries of machinery to agriculture (see section 4) suggest that in this sector construction and other works may provide a larger share of total investment than in the recent past. In the transport sphere, more rapid extension of the railway network than in earlier post-war years is planned, and electric and diesel traction is to be considerably extended. At the same time, the construction of oil and gas pipelines on a very large scale will help to relieve strains on the rest of the transport network. During the plan period 26,000 kilometres of gas pipelines will be added to the 9,500 existing in 1958; and the total length of oil pipeline in the country will be trebled.[67]

The Pattern of Industrial Investment

The branches designated for most rapid expansion — with the help of a volume of centrally-planned investment in industry during 1959-1965 more than double that of the previous seven years — are readily identified from the data in Table 11. Chemicals is the most strikingly favoured branch; but oil and natural-gas extraction, ferrous metallurgy, and timber and its products are to receive above-average increases in investment allocations.

The structure of investment in the chemicals industry is as revolutionary as its share in total industrial investment. During past years, the Soviet Union has produced mostly staple products, such as caustic soda, soda ash, sulphuric acid, chemical fertilizers and dyes. But the new plan puts an overwhelming stress on the development of synthetic fibres, plastics and synthetic rubber; and, out of the 100-105 billion roubles to be invested in the chemicals industry, about 50 billion roubles—more than the total volume of investment in the whole chemicals industry during the preceding seven years—will be devoted to capacity for synthetic materials.[68] Plastics are intended to replace, by 1965, some of the present metal inputs into the engineering branches, with a substantial long-term saving of investment costs,[69] and their expected increase in importance in other uses is noted in section 4 below.

The planned change in the pattern of energy use in the Soviet Union — away from coal and towards oil and natural gas — is also described in section 4; and it is reflected in a rise in investment in coal mining smaller than that for any other separately specified branch of activity, combined with the very large programme of oil investment already noted. The pattern of development in the chemicals branch has its repercussions on the latter plan. The refinery investment programme envisages particularly large increases in capacity for catalytic cracking and reforming, made necessary by the shift in the balance of end-uses away from paraffin towards petro-chemicals and high-octane motor spirit. Nevertheless, this is one branch in which technological advance is expected to permit a rise in returns per unit of investment during the next seven years, contrasting strikingly with the rise in the capital/output ratio in coal mining.

Despite a considerable planned extension of open-cast mining — at relatively small investment cost — the data in Table 9 indicate an expected rise in coal output from 1958 to 1965 only half as great as that registered between 1951 and 1958, accompanying a volume of investment during the plan period larger by one-quarter than in the preceding seven years. The reason seems to lie partly in the planned expansion of coal mining in the eastern regions which are to provide more than half the planned increment of total output (though much of this will be open-cast) and partly in the need to sink new pits, particularly for coking coal. The alternative of electro-smelting to eliminate the need for coking coal — or for coal at all where hydro-power is available — has been examined but is apparently not to be introduced on a large scale except where technologically essential.

Investment in electricity generation and distribution is also to rise less rapidly than the industrial average, though the building up of a unified grid — with links to other countries also — is to be accomplished during the seven years, implying about four times the 1952-1958 construction of new lines. A marginal shift towards thermal power helps to ensure quick returns to investment in generating capacity (see section 4). A saving in cost is also to be secured by the construction of very large units of 1-2.4 million kW capacity; and it is planned also to cut building costs to a minimum (for example, by leaving some of the equipment, such as boilers, in the open where climatic conditions permit). At least five nuclear power stations will be completed during the plan period, and reach their full-rated capacities of some 500 MW each.[70] They are all sited in districts with relatively poor fuel supplies (near Moscow and Leningrad, in the Urals

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[67] See the *Bulletin*, Vol. 10, No. 3, pp. 37-40.

[68] See *Promyshlenno-ekonomicheskaya gazeta*, 14 August 1959.

[69] Investment required for production of certain plastics and ferrous and non-ferrous metals has been estimated as follows (in thousands of roubles per ton):

Plastics		*Non-ferrous metals*	
Amino-resins	0.5	Lead	17
Polyvinyl chloride	4.1-4.6	Aluminium	20
Polystyrene	1.5	Copper	26
Polyester resins	1.2	Tin	330
Polyvinyl acetate	4.5-5.0	*Rolled ferrous products*	4-5[a]
Polyethylene	6.1-7.2		

Sources : M. Garbar, *Plasticheskie massy v narodnom khozyaistve*, Moscow 1958, p. 13 (quoting N. Nekrasov, *Khimya v narodnom khozyaistve*, Moscow 1958, p. 17).

NOTE. — The above figures may in some cases understate the possible saving: in the production of tubes, for example, one ton of polymer resins may replace four tons of lead.

[a] Including investment in ore mining and coke production.

[70] The first of these, with a full capacity of 600 MW, came into operation at 100 MW capacity in 1958 (*Pravda*, 9 September 1958).

and Voronezh districts and at Ulyanovsk); and additional stations, on which work will be started before 1965, are similarly to be located in energy-poor regions.

The third sector of major investment expansion is ferrous metallurgy where, as already mentioned, investment resources will be divided between development of new capacities mainly in the eastern regions and — to the extent of 59 per cent of the total — modernization and extension of existing enterprises. As indicated above, this 59 per cent of new investment is expected to produce 77 per cent of the total increment of output of pig iron, 75 per cent for crude steel, 79 per cent for rolled products etc.[71] The expected relationship of total output to capacity increments for four products is illustrated by the following figures (in millions of tons):

	Seven-year increment of capacity		*Seven-year increment of output*	
	1952-1958	*1959-1965*	*1952-1958*	*1959-1965*
Iron ore, crude weight	58	135	..	118-133
Iron ore, commercial weight	..	..	43.9	61-71
Pig iron	16.3	24-30	17.7	25-30
Crude steel	12.4	28-36	23.5	31-36
Rolled products	6.9	23-29	18.9	22-27

Sources : Narodnoe khozyaistvo SSSR v 1958 godu ; Planovoe khozyaistvo, No. 3, 1959, p. 30; *Gospodarka Planowa,* No. 11, 1959, p. 68.

These suggest that during the seven years up to 1958 a considerable increment of output was achieved by drawing ' reserve ' capacity into effective use, but that the time has now come at which further increases in output can only follow extensions of capacity. Moreover, the real plan-horizon is 1972, when 100-120 million tons of steel, 75-85 million tons of pig iron and 250-300 million tons of iron ore are to be produced. In consequence, much of the capacity installed during the plan years will not be in full production by 1965. Thus a Soviet author can claim that investment in ferrous metallurgy per ton of crude steel is even to decline under the Seven-year Plan (citing 1,700 roubles per ton as the 1952-1958 figure and 1,300 as that for capacity to be built — though not necessarily to come into full operation — under the plan).[72] Certainly the establishment of a " third metallurgical base " in Siberia is likely to involve heavy investment for slow returns;[73] and the fact that the new iron ore mines to be opened up during the plan period generally have a lower metal content than those at present exploited[74] tends to offset the saving of capital cost per unit of output resulting from modern methods of ore extraction. Furthermore, the 71 per cent rise in the capital/output ratio in the iron and steel industry shown in Table 9 is certainly an exaggeration, due to the use of crude steel as a representative commodity for the branch (output during 1959-1965 will include a rising share of high value capital-intensive products such as steel sheets, cold-rolled sheets, tin plate, tubes and alloy steels).

In the engineering industries, where investment is to increase by less than the industrial average, the accent is on modernization of equipment. It is planned to " modernize " 400,000 machine tools (incidentally equivalent to two years' output at the planned 1965 rate), thus raising their efficiency by some 25 per cent;[75] and at least 1,300 automated production lines will be put in commission during the plan years.

(b) The Eastern European Plans

The Growth of Total Investment

As is apparent from the data in Table 1 above, the share of resources devoted to investment during the period of the new long-term plans is to rise significantly in eastern Germany and Hungary, and to a minor extent in Czechoslovakia and Poland also. The planned increases under the new five-year plans are of the order of 60 per cent of the level of the preceding five years in Czechoslovakia but less in Poland (see Table 12) and, for state investment alone, in Hungary. But in the last two countries the rate of increase is nevertheless expected to raise the share of gross fixed investment in national product by 1965 to a level higher than in any year since 1953. In eastern Germany, investment outlays during 1959-1965 will be slightly more than double those of 1950-1958 (at current prices).

The share of productive investment in the total remains high in all three countries for which comparable data are available. But it is rather lower in Poland than in Czechoslovakia or Hungary, and only in Poland is the share in total outlays of machinery and equipment to fall somewhat. Plans for expenditure on capital repairs, though a smaller proportion of the total than in the past in the three countries shown in the table, are everywhere accompanied by increased stress on adequate maintenance and efficient use of the existing capital stock.

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[71] Calculations by V. Khlebnikov (*Planovoe khozyaistvo,* No. 3, 1959, p. 30) show that improved technical processes, opening of bottle-necks in existing enterprises, etc., should be responsible for 36 per cent of the planned increments of output of pig iron, 24 per cent of crude steel and 26 per cent of rolled steel—implying that 41, 51 and 53 per cent respectively will be derived from extensions to existing plants.

[72] N. Korobov, *Planovoe khozyaistvo,* No. 5, 1959, p. 28. He shows similar declines per unit of rated capacity for investment in copper, lead and zinc smelting and in aluminium production.

[73] For further data on points in this and the three preceding paragraphs, see Chapter IV, sections 2 and 3.

[74] This is shown by the 21 per cent faster growth of crude ore than of its aggregate metal content and by the fact that 56.5 per cent of ore prepared for blast furnaces will be enriched concentrates in 1965 against 35.7 per cent in 1957. Open-cast mining of iron ore will provide 59 per cent of output in 1965 against 49 per cent in 1957 (Khlebnikov, *op. cit.* p. 38).

[75] Yu. Maksarev, *Tekhnichesky progress promyshlennosti SSSR v 1959-1965 gg.,* Moscow 1959, p. 34.

TABLE 12

Gross investment outlays in three countries under the 1961-1965 plans and in earlier periods

Five-year totals in billions of national currencies at constant prices, and percentage shares

Country and period	Gross fixed investment				
	Total excluding capital repairs	Capital repairs	Total productive investment	Machinery and equipment	Building and construction
	Billions of national currency		Percentage of total excluding capital repairs		
Czechoslovakia					
1951-1955 . . .	99.7	14.2	71.1	34.3	..
1956-1960 plan [a]	166.0	35.9	.. [b]	29.1	..
1961-1965 plan .	263.0	49.0	71.0	33.1	..
Hungary					
1951-1955 . . .	68.9	15.1	76.6	21.5	57.3
1954-1958 . . .	56.7	23.5	74.1	24.7	51.7
1961-1965 plan .	102*	22.5* [d]	72.4*	29.0*	49.5*
Poland					
1951-1955 . . .	210.5	36.5	74.9 [c]	31.6 [c]	61.5 [c]
1956-1960 plan .	297.4	62.6	66.7 [c]	30.3 [c]	65.1 [c]
1961-1965 plan .	445.3	93.8	63.5 [c]	28.6 [c]	66.1 [c]

Sources : Statistical yearbooks, plans and plan fulfilment reports. On Hungarian data, see Appendix B, notes to Table 1.

NOTE. — Data for Czechoslovakia are in 1959 prices, for Hungary at 1954 prices (unchanged since 1 January 1952) and for Poland at 1956 prices.

[a] Actual results seem likely to be very close to the plan.

[b] The share during 1956-1958 was 68.8 per cent.

[c] Shares in total *including* capital repairs.

[d] State-financed except in housing (for which total).

The Sector Distribution of Investment

However, there are marked differences in the patterns of development of these four countries, particularly between Czechoslovakia and eastern Germany, on the one hand, and Hungary and Poland on the other (see Table 13). Industry and transport are the favoured sectors of productive investment in Czechoslovakia, where the share of social amenity investment (other than housing) is also to increase considerably. Industry and building enterprises will absorb almost as large a share of total investment resources in eastern Germany also, and their total allocation will rise (at current prices) from DM 24 billion during 1952-1958 to DM 60 billion under the Seven-year Plan. [75a] The share of agriculture is low in both countries, though fairly high in Czechoslovakia in relation to the sector's contribution to national product or its share in the existing capital stock.

In Hungary, by contrast, the share of industry in gross investment will fall noticeably under the new plan whereas the shares of resources devoted to agriculture and transport are to be greatly increased. A similar, though less pronounced, fall in the share of industry is planned in Poland and the shares of agriculture, housing and other social investment will rise. However, in this country the rising share of social investment in the total accounts for most of the change in the general pattern, and the share of investment resources to be devoted to agriculture looks relatively low by comparison with either the sector's contribution to national product or its share in the existing capital stock.[76] Presumably this is related to the assumption, noted above, of an unchanging agricultural labour force during the plan period and to the uncertainty about the future institutional framework, whereas both in Hungary and Czechoslovakia the provision of a relatively large volume of investment means is linked with the pressure to complete collectivization and to release manpower on a considerable scale.

Investment in Industry

In all four countries under review, as in the Soviet Union, great emphasis is placed on modernization of equipment in existing enterprises as a major contribution to raising labour productivity and total industrial output. As is apparent from the figures in Table 12, provision for capital repairs (including under this heading some complete replacement of obsolescent equipment) is to be increased by 50 per cent over that of the previous five-year plan in Poland and by 37 per cent in Czechoslovakia; and although there is no major increase in Hungary — repairs having been high in relation to the total in the recent past also — it is nevertheless planned to reduce the average age of all machine tools in the engineering branches from 18 years to 13-14 years by 1965, thus raising output per unit of factory space by 50 per cent.[76a] The share of machinery and equipment in total investment will rise in both Czechoslovakia and Hungary; and in the former country deliveries for domestic investment are planned to be 75 per cent greater than during 1956-1960, raising the share of equipment in total industrial

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[75a] Indicators of the rates of growth of investment in other sectors are as follows (total investment including capital repairs and projecting costs)

	1960 (1955 = 100)	*1965* (1955 = 100)	*1965* Billion DM
Gross fixed investment	210	319	24.6
of which :			
Industry	251	351	..
Building enterprises	473	568	0.79
Trnasport	199	353	2.67
Agriculture and forestry	164	215	2.36
Housing	298	364	3.14

Source : Elnheit, No. 11, 1959, p. 1487.

[76] The decision, taken in 1959, to channel additional investment resources to agriculture through the " agricultural circles " is likely in part to make realistic a central investment plan that would not otherwise have been achieved; but some net addition to the planned volume of investment will probably result (see the *Bulletin*, Vol. 11, No. 3, pp. 42-43).

[76a] *Közgazdasági Szemle*, No. 10, 1959, p. 1022.

TABLE 13

Distribution of gross fixed investment in four countries under the long-term plans

Country and sector	Share of sector in:			Gross fixed investment 1961-1965	
	Net domestic product in 1958	Fixed capital stock in 1958	Gross fixed investment 1961-1965	Value in billions of national currency	Index, 1956-1960 = 100
Czechoslovakia	*a*	*a*	*b*	*b*	*b*
Total	100	100	100	263.0	158
Industry	67	29	46	119.4	179
Construction enterprises	11 [c]	1	2	6.0	140
Agriculture and forestry	10	9	15	40.0	152
Transport and communications	3	21	11	28.4	175
Housing	..	24	14	36.8	124
Health, education, etc.	..	6	6	15.8	176
Trade and catering	6	2	6	16.6	122
Administration and other	..	8			
Eastern Germany			*d*	*d*	*d*
Total	100	..	100	142.0	..
Industry and construction enterprises	67	..	42	60.0	250
of which: State construction enterprises	..	..	1	1.7	..
Agriculture and forestry	12	..	10	14.6	..
Transport and communications	5	..	10	14.0	..
Housing	..	..	21	30.0	..
Culture and health	..	..	3	4.3	..
Other	..	..	12	17.4	..
Hungary [e]			*f*	*f*	*f*
Total	100	100	100	102	180
Industry and construction	62	22	39	40	160
Agriculture	26	13	19	19	190
Transport and communications	4	18	11	11	230
Other	8	47	31	32	180
Poland		*h*	*i*	*i*	*i*
Total	100	100	100	539.1	150
Industry	49	26 *	37	201.2	141
Construction enterprises	9	2 *	3	13.7	134
Agriculture and forestry	28	19 *	13	72.1	153
Transport and communications	3	16 *	11	58.9	150
Trade	9	2 *	2	11.6	125
Housing	..	26 *	22	116.3	167
Social welfare	..	4 *	6	33.5	154
Other	2	5 *	6	31.8	156

Sources: Statistical yearbooks and plan documents. On Hungarian data see Appendix B, notes to Table 1.

NOTE. — Fixed capital stock is given without deduction of amortization in Poland, net of amortization in Hungary and, probably, in Czechoslovakia.

[a] At prices of 1 April 1955.

[b] At 1959 prices, excluding capital repairs.

[c] All construction.

[d] 1959-1965 at " current " (probably 1959) prices. Index based on 1952-1958 = 100.

[e] All data are in 1954 prices and for the plan values are in some cases mid-points of a range.

[f] Excluding capital repairs. The index is based on 1954-1958 = 100. Index 1961-1965 for state investment alone is 150 (1956-1960 = 100).

[h] Estimated share in 1960.

[i] In 1956 prices including capital repairs.

fixed assets from 46 per cent in 1960 to 49 per cent in 1965.[77]

Data on the planned distribution of investment by industrial branch are exiguous for most countries, but some common tendencies can be discerned — in particular a continuing concentration on near-maximum exploitation of domestic raw material and fuel resources in every country, with international specialization affecting plans mainly in the processing branches. Energy development will continue everywhere to make considerable demands on investment resources, with natural gas extraction (where gas is available), oil refining and related pipeline development becoming increasingly important. Chemicals is a branch of major priority in Czechoslovakia and eastern Germany and important elsewhere also; and, from the point of view of the area as a whole, investment in this branch has a markedly import-saving character. In the engineering branches — also of major importance in every country — the tendency is rather towards export-promoting investment; but in the two last-mentioned branches some degree of specialization within the CMEA area seems to be in prospect (see section 4). Investment on a fairly large scale in the building materials industries is everywhere related to expanding programmes of housing and other construction.

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[77] *Rudé Právo*, 28 November 1959.

In Czechoslovakia more than 24 billion Kčs, or 20 per cent of total industrial investment during 1961-1965, will be devoted to the metallurgical industries; and this will represent double the volume provided under the 1956-1960 Plan. Investment in the chemical industry will be 20 billion Kčs, or 17 per cent of the total, second only to the share in eastern Germany. Engineering will absorb 15 billion Kčs, or 13 per cent, and building materials 8 billion Kčs, or 7 per cent. In the consumer-goods sector — where investment in food processing will be 43 per cent greater than during 1956-1960 — the emphasis will be on modernization and extension rather than establishment of completely new capacities. In the energy field, the projected rise in coal output (see section 4) will involve some significant investment; and new gas works and electricity stations will be sited mainly on the coalfields. The first nuclear power station should go into operation in 1965 and a completely unified grid — with automated control — should be established during the plan period.

The rise in the industrial capital/output ratio in Czechoslovakia is the second highest — after eastern Germany — in the four eastern European countries and about equal to that expected in the Soviet Union (see Table 8 above). The phasing of projects with differing periods of maturity naturally influences the change in the ratio in all countries. However, the east German plan is far more conditioned by labour scarcity and the need to raise industrial output per man than is that of Czechoslovakia. The main stress is therefore on development of those sectors in which skill and capital can make the major contribution to output growth, and on the provision of the necessary energy for their support; but even so, the estimates of the returns — in terms of increased output per man — to be expected in the plan period are startlingly high (see Tables 6 and 8 above).

Investment in chemicals, electrical engineering and power generation (including a nuclear power station) taken together is to be trebled in eastern Germany between 1958 and 1965; and mining and metallurgy are stated to be the next most favoured sectors. Chemicals alone will absorb 20 per cent of all investment in industry during 1959-1965 (compared with 14 per cent during 1951-1960); and the only other branches for which precise shares have been stated are metallurgy (8 per cent compared with 13 per cent during 1951-1960) and glass and ceramics (2 per cent).[77a] However, the following indications of the growth of investment in individual branches have also been published:

	1960	*1965*	*1965*
	(1955=100)		Billion DM
Coal	204	175	1.20
Electric power	251	481	2.44
Metallurgy	247	340	0.99
Engineering	226	265	1.17
Chemicals	329	576	1.93
Light industries (including glass and ceramics)	215	300	0.68

Source and coverage : As in footnote 75*a*.

In this plan, the Soviet Union plays a key role, both as a supplier of raw materials and fuel, and as a market for a considerable share of the increased exports of chemicals and engineering products which are one object of the plan (see sections 4 and 5 below).

In Hungary, about 70 per cent of all industrial investment during 1961-1965, including capital repairs, is to be devoted to energy and raw materials production, a choice dictated largely by fears of a too rapidly rising import bill.[78] Capital repairs and renewals under the state renewals plan are as shown in Table 12, but it seems that some extra provision for renewals is in fact included in the 102 billion forints of investment shown in the first column.[78a] It seems possible, therefore, that well under 30 per cent of all industrial investment may in fact be available for new investment in the manufacturing branches — in which obsolescence is almost certainly higher than in the basic sectors. The emphasis in the plan on capital economy and the possibility of achieving increased output through rationalization and small investment is therefore strong.

The major projects enumerated in the plan are concentrated mainly in the basic materials (including cement) and energy branches. Electricity generating capacity is to be increased by 65 per cent, and oil-refining capacity is to be extended to process extra imports. In the chemicals industry, new capacity is concentrated on artificial fertilizers and synthetic materials; and new projects of smaller importance are planned in the steel industry, in alumina production and in the non-ferrous metals industries (other than aluminium). In the light industries, new plants and extensions in the cellulose and paper branches are to treble and double their respective capacities; but, in general, investment in the consumer-goods branches will be mainly in modernization rather than in new capacity. This is also true, as noted above, of engineering. The expectation of considerable, and quick,

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[77a] The figures for 1951-1960 quoted above refer only to state investment in industry (*Die Material-Wirtschaft*, No. 18, 1959, p. 4).

[78] *Népszabadság*, 15 November 1959.

[78a] Total planned capital repairs and renewals are stated to be 68 billion forints at 1 January 1959 prices of which 45 billion (22.5 billion at 1954 prices) are in the state renewals plan and part of the remainder (about 12 billion at 1954 prices) are probably in the main investment plan (*Figyelö*, 10 November 1952, p. 4; and *Társadalmi Szemle*, No. 10, 1959, pp. 128-129).

TABLE 14

Industrial investment and capital/output ratio by branches in Poland in 1956-1959 and 1961-1965

	Investment 1956-1959		Investment 1961-1965		Index numbers of production 1959 = 100			Increase in production in index points		Investment [b] per point increase in production		Change in ratio Col. 11 : Col. 10
	Value [a]	Percentage share	Value [a]	Percentage share	1955	1960	1965	1955 to 1959	1960 to 1965	1956 to 1959	1961 to 1965	
	1	2	3	4	5	6	7	8	9	10	11	12
Total industry	101.7	100	190 [c]	100	70	108	161	30	54	3 390	3 519	104
Mining and electric power	33.1	32.5	61	32.0	83	103	132	17	29	1 947	2 103	108
Heavy industry [d]	26.3	25.9	45	23.7	62	113	187	38	74	692	608	88
Chemicals	13.5	13.3	27	14.2	56	114	236	44	122	307	221	72
Building materials	9.0	8.8	18	9.5	69	109	175	31	66	290	273	94
Wood	2.6	2.6	10	5.3	86	104	135	14	31	186	323	174
Light industry [e]	5.3	5.2	12	6.3	69	105	143	31	38	171	316	185
Food processing	7.4	7.3	10	5.3	74	106	139	26	33	285	303	106
Other	4.5	4.4	7	3.7	..	..	..	..	..	..	..	..

Sources : Statistical Yearbook 1959 ; Gospodarka Planowa 1-2, 1959, p. 9 *et seq.*; and *Trybuna Ludu*, 22 March 1959.

[a] Billions of zlotys at 1958 prices.

[b] Millions of zlotys at 1958 prices.

[c] Distribution of the total is estimated on the basis of data included in the sources indicated above, and a number of articles in Polish economic periodicals.

[d] Ferrous and non-ferrous metallurgy and engineering.

[e] Textiles, clothing and footwear industries.

returns from such investment is reflected in the improving industrial capital/output ratio shown in Table 8.

Poland assumes the most favourable development of the capital/output ratio after Hungary. In the former country the expected structure of industrial investment in the plan period shows little difference from that of 1956-1959. The percentage share of heavy industry (metals and engineering) in industrial investment is to decline by 2.2 points and the shares of chemicals, the building-materials industries and textiles are each to increase by about 1 point. A bigger increase is planned in the share of the timber industry, while the share of food-processing is to diminish somewhat. Nevertheless, the major sectors remain as before — fuel and power, heavy industry and chemicals, in that order (see Table 14).

The ratio of investment to output in mining is expected to deteriorate during the new plan period, since the time has come when it is necessary to sink new pits rather than exploiting easily available resources. The new plan includes several mines for coking coal, which call for relatively higher investment than do other coal mines; [79] and new mines for copper, lead and zinc are to be opened, though only a part of their eventual capacity will be in operation by 1965.

Investment outlays per unit of output will rise also in newly constructed thermo-electric plants based on brown coal, though cheaper fuel inputs will, in fact, be an offsetting factor when total cost of generation is measured. The construction of some hydro-electric plants adds also to investment in relation to output during the plan period, and these factors are not fully offset by higher returns in terms of gross output to investment in large-scale thermo-electric plants based on hard coal.

An improvement in the capital/output ratio in Polish heavy industry (metals and engineering) is due mainly to planned better utilization of productive capacities, together with a change in the structure of engineering output towards higher-value products; and in the chemicals industry by the planned expansion of processed chemicals and pharmaceuticals, partly through fuller use of existing capacity, and a somewhat slower expansion of the most capital-intensive branches. The introduction of cheaper technological processes, such as substitution of coke by natural gas in the production of ammonia, is also reflected in the changing ratio.

In engineering and the light industries the capital stock is not only to be increased but, in Poland as in other countries, must be replaced to a considerable extent. The following table illustrates the scope of replacement envisaged in the Polish textile industry in the course of the next few years:

	Number of machines in 1958 [a]	*Number of machines to be replaced*	*Percentage of machines to be replaced*
	Thousands		
Cotton spindles	1 891	ca 1 000 [b]	ca 53
Cotton looms	40	3 [b]	8
Combed wool spindles	326	250 [b]	77
Card wool spindles	281	100 [b]	36
Wool looms	7	2	39

Source : Statistical yearbook 1959; and plan documents.

[a] Average of those actually working.

[b] The greater part of these machines was installed before 1920.

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[79] Between 1959 and 1965, the construction of six new coal mines would be completed and work on seven new mines started, of which five mines will be for coking coal.

Co-operation in Investment Projects

A number of joint schemes for development of natural resources for the benefit of two or more countries of the region have been negotiated in the past, some of them under the auspices of the Council for Mutual Economic Assistance, and have been described elsewhere.[79a] One of the largest joint schemes — the construction of pipelines to bring crude oil from the Soviet fields near Kuibyshev to Hungary, Czechoslovakia, Poland and eastern Germany — has been under discussion since 1957 and was the subject of an agreement signed by the countries concerned in December 1959.

On the basis of this agreement, all countries will start work at the beginning of 1960 on the sections of pipeline on their territories and on the new refinery capacities needed to process additional imports of oil.

The line, 4,500 km. long, will cross the Russian Federation and Northern Ukraine to Byelorussia where, at the town of Mozyr, it will bifurcate, one branch going through Poland to eastern Germany and the other through the Ukraine and Hungary to Czechoslovakia. The agreement signed in Moscow provides for mutual deliveries of machinery and equipment and other investment materials and arranges that each country is to work out the technical plans for that part of the line on its own territory, to construct it at its own expense, and will then own the whole installation on its territory. Construction is to be finished in 1963.

All the countries concerned are starting immediately to construct large-scale oil refineries. At Plock on the Vistula in Poland and at Schwedt-on-Oder in eastern Germany capacities by 1963-1964 will be sufficient to refine in each case 1 to 2 million tons of crude oil, in 1966-1967 some 4 million tons, and by about 1975, 8 million tons. In Hungary, the existing oil-refining capacity of 1.7-1.8 million tons will be sufficient to process the domestic output of crude oil expected by 1965;[80] but additional capacity will be needed for 2.0 million tons a year of expected imports through the new pipeline.

Regional Development Policies

Within each country considerations of regional domestic development have influenced the investment plans.

In Poland, policy is directed as before to 'decompressing' the highly industrialized area of Silesia, by abstaining from new construction in that area, or even by removing industrial plants not supplied by local raw materials to new industrial districts particularly in the western, central and south-eastern provinces. New investment is also to be used as a means of economic revival of small and medium-size towns.

An important chemical industry is under construction in the Sandomierz region, based on locally mined sulphur ores and natural gas imported from nearby localities.[80a] Near Legnica and Glogów (Lower Silesia), a new metallurgical centre is being built up beside the newly-discovered deposits of copper ore. Two industrial regions are being developed on the basis of brown coal in Turoszôw (in western Poland) and Konin (in central Poland), the latter area also possessing rich deposits of potash. The new petrochemical centre near Plock has been mentioned above. Near Rybnik, a new coal-mining district is already advanced in construction, dealing with the local deposits of coking coal and, finally, industrialization is to be speeded up in the 'three towns' — Gdańsk, Sopot, Gdynia, now treated as one economic unit — and at Szczecin.

In Hungary, investment programmes provide for the development of the five major provincial industrial centres of Miskolc, Pécs, Györ, Debrecen and Szeged; and it is intended, as in the past, to de-congest the Budapest area, where nearly half of all industry in the country was located in 1958. No important new industrial construction will be permitted in that area, and extension of existing establishments will be allowed only in especially strong cases. This district will receive less than 20 per cent of all investment, and its share in total industrial employment is expected to decrease from 46 per cent in 1958 to 41 per cent by 1965. The northern, the northern- and central-Transdanubian, and the southern-Transdanubian industrial regions, which centre on fuel and ore deposits, will receive more than half of total industrial investment under the plan, especially for mining and electric power development. In the northern industrial district this will form the basis of an industrial complex including metallurgical and chemical industries, and in the southern Transdanubian region important capacity for building materials will be established. The industrially least developed regions of the Great Hungarian Plain (the Tisa and Danube-Tisa areas) are to be allocated one-fifth of the country-wide total of investments — especially for the development of labour-intensive engineering and light and food industries, to absorb workers released by collectivization and mechanization of agriculture. As a result, the industries of the Great Plain (with centres in Debrecen and Szeged) should provide 17 per cent of all industrial employment in 1965, compared with 14 per cent in 1958.[81]

[79a] *Economic Bulletin for Europe*, Vol. 11, No. 1, pp. 60-65.

[80] *Statisztikai Szemle*, No. 10, 1959, p. 969.

[80a] The future plants' annual output of sulphuric acid is expected to reach 350,000 tons.

[81] See Plan Directives and *Társadalmi Szemle*, No. 11, 1959, pp. 40-46.

In Czechoslovakia, it is planned to proceed further with the industrialization of Slovakia, and thus to diminish the disparity in economic development between the two main parts of the country. The annual rate of growth of industrial production for the whole country is planned at 8.5 per cent, and for Slovakia alone at about 12 per cent. In particular, the plan provides for the construction of a new industrial area in eastern Slovakia, where work on a metallurgical complex near Košice — started around 1950 and later abandoned — is to be taken up again; and new industrial plants are to be located also near Bratislava and Nitra in south-western Slovakia. Special investment efforts in the western ' border areas ' are also planned, involving both reconstruction and modernization of existing plants and new construction.

4. THE PRODUCTION TARGETS

The Pattern of Industrial Growth [82]

The faster expansion of the gross output of producers' goods than of consumers' goods is a feature of the industrial production plans of the Soviet Union, Czechoslovakia, eastern Germany and Hungary; but in Poland the two rates are approximately equal. In the former group of countries the divergent rates of growth in different branches will bring about considerable changes in the structure of industrial output by 1965, and these are particularly marked in Czechoslovakia and Hungary (see the last three columns of Table 15).[83]

Chemicals is one of the most rapidly expanding branches in all the eastern European countries and in the Soviet Union — where the rise is to be extraordinarily steep. The main elements nearly everywhere will be increasing output of synthetic fibres, plastics and the fertilizers required for agricultural expansion programmes. Engineering and building materials are other branches for which very high rates of growth are planned in all the eastern European countries. Textiles, on the other hand, everywhere show planned increases in output well below the average. In the Soviet Union, at least, this does not reflect any shift of civilian consumption away from textiles and clothing, but rather changes in technical uses. Such factors will also play a part in limiting eastern European needs for textiles, but there are also indications that in those countries consumers' demand is expected to shift somewhat away from fabrics towards durable goods (see also section 6 below).

There are nevertheless differences of emphasis from one country to another in the industrial production plans. It is a noticeable feature of the Soviet plan that, of the few industrial branches for which output targets are available, only chemicals shows an intended acceleration of the past rate of expansion. The rates in other branches, for which the goals are known, cluster closely about the average — engineering (and within this, consumers' durable goods) above, and energy production and the textile and clothing group below it. This uniformity, however, cloaks some radical changes in composition within each branch. Thus among the commodities for which 1965 production targets have been published, natural gas, chemical fertilizers, some electrical equipment, rolling-mill equipment, cement, pulp and paper show percentage increases in output during the plan period exceeding those of the preceding seven years. Output of synthetic fibres, most consumers' durable goods (other than radios) and prefabricated building components was, in most cases, negligible in 1950 or 1951, and the rates of growth registered up to 1958 could hardly have been expected to continue for a further seven years; but their production will continue to rise during the plan period at well above the average rate.

In Czechoslovakia, chemicals, building materials and engineering are to be the most expansive branches under the Third Five-year Plan, and the contrast between rates of growth in these priority branches and others is more marked than in the recent past (see Table 15). Nevertheless, great stress is placed on rapid growth of production of pig iron, crude steel and rolled products (to nearly double the 1958 levels by 1965) to support the expansion of the engineering branches. Individual production targets implying a more than doubling of output from 1958 to 1965

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[82] The output targets for major industrial products in each country's plan are shown in Appendix Table II, with comparative figures for 1951 and 1958. For similar detailed production data for intermediate years, see also *Economic Bulletin for Europe*, Vol. 11, No. 1, Appendix Tables I-VII.

Whenever in this section no other source is given for quantitative statements about production targets, it may be assumed that any supporting statistics are contained in Appendix Table II or in the *Bulletin* tables mentioned above. Sources for certain qualitative statements on the Soviet Union may also be found in Appendix B (section ii of notes to Chapter IV).

[83] The prices at which output is valued can, of course, considerably affect the apparent overall rates of industrial growth when rates of expansion differ markedly from branch to branch. For example:

Industrial production in Hungary

Industrial sector	*Percentage share in output in 1958 at prices of*		*Branch index numbers 1965 (1958=100)*	*Index (1958=100) weighted by values in prices of*	
	1954	*1959*		*1954*	*1959*
Basic materials	26.3	37.3	173	46	65
Engineering	25.4	27.5	190	48	52
Light industry	23.2	18.6	139	32	26
Food processing	25.1	16.6	136	34	22
Total state industry	100.0	100.0	..	160	165

Source for weights : Közgazdasági Szemle, No. 7, 1959, p. 723.

TABLE 15. — The growth and structure of gross industrial output, past and planned

Cumulative annual percentage rates of growth, and percentage shares

Country and industrial branch	Annual percentage rates of growth								Percentage shares in total	
	1951-1955	1956	1957	1958	1959	1960 Plan	1961-1965 Plan	1959-1965 Plan	1958	1965 Plan
Czechoslovakia										
Total	11.2	9.5	10.2	11.3	10.9	10.2	8.5	9.1	100[a]	100
Group A[b]	13.5	10.8	10.1	11.8	13.0	..	10.1	..	56	68
Group B[b]	8.6	8.1	10.3	10.6	8.0	..	5.7	..	44	32
Fuels	7.3	7.5	14.0	11.8	3.0	..	5.2	..	7	5
Electric power	10.7	13.6	7.7	10.3	13.0	13.0	9.6	10.6	3	4
Metallurgy	13.6	11.8	8.1	9.0	13.0	13.0	9.2	10.2	11	12
Engineering	18.7	14.1	10.5	15.6	17.0	14.0	11.5	12.6	24	31
Chemicals	16.1	13.1	13.1	11.0	12.0	12.2	13.2	12.9	8	10
Building materials	14.9	14.6	24.4	17.0	15.0	13.3	13.2	13.5	3	4
Textiles	6.6	2.9	9.7	10.4	..	..	2.8	..	8	..
Glass, china and ceramics	4.7	13.2	11.6	13.0	..	..	7.0	..	1	..
Food processing	6.6	6.0	7.1	6.6	4.0	5.3	4.7	4.7	17	12
Eastern Germany[c]										
Total	13.6	6.3	7.6	11.3	12.3	..		9.4	100	100
Group A[b]	14.0	..	..	..	..	..		10.0	..	..
Group B[b]	13.0	..	..	..	..	..		8.5	..	..
Basic industries	12.3	8.1	7.2	8.8	10.2	..		9.7	29.2	30.6
of which : Metallurgy	19.6	7.7	6.8	9.5	10.5[d]	..		9.3	6.5	6.4
Chemicals	13.9	8.1	7.8	10.0	10.1[d]	..		10.9	14.5	16.9
Building materials	9.7	10.4	14.9	12.0	..	..		13.1	1.9	2.4
Metal-using industries	16.5	8.9	7.8	15.8	17.6	..		11.7	31.2	37.1
of which : Heavy engineering[e]	15.9	12.8	1.8	13.4	16.8[d]	..		11.1	5.5	6.3
General engineering[e]	13.8	6.8	4.9	18.2	17.4[d]	..		14.0	4.8	6.5
Electrical engineering	19.4	10.4	16.5	18.0	20.8[d]	..		14.9	7.0	9.9
Light industry	10.7	2.2	8.0	10.7	12.0	..		9.0	24.0	22.6
of which : Textiles	12.3	3.8	5.9	9.5	10.7[d]	..		8.9	10.8	..
Clothing	13.8	−5.5	20.0	16.0		..		10.4	3.4	..
Leather, shoes and tobacco	12.7	0.5	7.1	11.4		..		8.1	2.1	..
Wood processing	9.6	4.7	8.3	11.5	..	..		9.4	3.6	..
Glass and china	8.3	0.8	2.3	11.1	..	..		10.4	1.3	..
Food processing	16.7	4.6	7.6	8.1	5.5	..		4.8	15.6	11.6
Hungary[f]										
Total	14.9	−8.5	11.3	12.4	12	8		7.0	100.0	100.0
Group A[b]	17.5	−6.8	9.1	17.7	16	10		8.8	51.7	58.6
Group B[b]	12.5	−10.2	13.6	6.8	7	6*		4.6	48.3	41.4
Mining	12.8	−9.0	−5.0	18.5	17	1.9		2.9	4.1	3.1
Electric power	12.2	0.5	1.9	22.6	12	7.6		9.3	3.0	3.5
Metallurgy	14.9	−9.6	3.4	19.4	10	4.8		7.0	8.0	8.1
Engineering	19.6	−6.7	10.0	17.3	17	13.6		9.6	25.4	30.2
Building materials	14.5	−4.7	8.4	14.9	19	8.1		9.2	3.4	3.9
Chemicals	17.8	−7.2	27.9	16.1	19	7.1		10.4	7.8	9.8
Light industry	10.9	−18.3	26.4	10.7	7	8.6		4.8	23.2	20.1
of which : Textiles and clothing	11.3	−16.4	21.2	11.2	6	..		4.0	16.0	13.2
Food processing	14.3	−4.1	5.0	3.4	6	4.2		4.5	25.1	21.3
Poland[d]										
Total	19.1	9.1	9.6	9.8	9.0	7.6	8.4	8.5	100.0	100.0
Investment goods	19.8	10.6	7.7	8.8	11.0	7.9	8.6	8.8	51.5	51.8
Consumers' goods	18.1	7.4	11.6	10.9	6.0	7.2	8.3	7.9	48.5	48.2
Electric power	14.4	18.5	8.7	13.1	10.1	9.0	9.0	9.2	2.3	2.3
Fuels	7.5	1.9	0.6	1.5	6.1	..	5.5	5.0	6.3	5.0
Metallurgy	15.4	7.8	8.0	4.7	6.4	..	7.6	7.2	8.3	7.6
Engineering	29.4	12.7	14.7	14.7	18.0	..	11.7	12.1	19.1	23.7
Chemicals	26.5	11.1	13.3	19.4	17.8	14.1	16.5	16.4	4.5	7.3
Building materials	19.9	8.4	7.5	10.0	13.8	..	10.3	10.1	2.4	2.7
Wood processing	27.2	1.1	7.1	2.8	8.0	4.0	5.7	5.6	3.1	2.5
Textiles, clothing, leather	16.0	10.7	10.6	10.5	7.7	..	6.4	6.5	19.1	16.9
Food processing	16.6	8.7	8.3	8.7	3.1	..	6.5	6.5	30.0	26.6
Soviet Union										
Total	13.1	10.6	10.0	9.7	11.5	8.1		ca. 8.6	100	100
Group A[b]	13.8	11.3	10.9	11	12	8.8		ca. 9.3	71.6	ca. 77.4
Group B[b]	12.0	9.2	8.2	7	10.3	6.4		ca. 7.3	28.4	ca. 22.6
Fuels and power[h]	9.1	7.1	11.8	9.6	9	..		7.6[i]	..	..
Engineering and metalworking	16.7	13.7	13.2	15.4	15	12		min. 8.3	..	..
Chemicals	16.8	12.8	12.2	12.4	10	10		max. 17.0	..	..
Household durable goods[j]	33.2	5.7	8.1	9	9	..		9.9[k]	..	..
Textiles, clothing, footwear, fur-dressing	12.1	7.5	5.1			..		ca. 6.0	..	..

(For notes see opposite page).

include chemical fertilizers, plastics, a number of engineering products (steam turbines, equipment for the metallurgical, chemicals and building materials industries, roller bearings, tractors, locomotives, motor cars, refrigerators, television sets) cement and prefabricated building components. The engineering industries are intended to provide 55 per cent of Czechoslovak exports in 1965 compared with 43 per cent in 1958.

In eastern Germany the fastest expansion is planned in the general and electrical engineering branches, with building materials in third place and chemicals output rising no faster than the average of the basic and metal-using industries despite its remarkably large share in total investment during the period (see section 3). Nevertheless, some of the fastest rates of growth of output planned for individual products appear in the chemicals branch (plastics and synthetic fibres). Among engineering products, many consumers' durable goods show particularly rapid increases, followed by scientific, measuring and controlling instruments, steam turbines, machine tools, chemical equipment and agricultural and food-processing machinery. As in Czechoslovakia, a large part of the increase in engineering output is destined for export to other countries of the area, as is much of the increment of production of chemicals. These two branches will provide 83 per cent of all east German exports in 1965 compared with 78 per cent in 1958.

Increases in chemicals production exceeding the rates in any other sector are foreseen in the Hungarian plan, with electricity generation, engineering and building materials expanding only slightly less rapidly. The expectation of rising exports of foodstuffs, accounts in part for the maintenance of the past rate of growth of this branch, in contrast with the slowing down predicted in all the other available plans (except that of Albania); and the cellulose-paper-printing complex also shows high rates of expansion as a result of installation of new capacities for cellulose and paper production. Among individual products, chemical fertilizers show particularly high rates of expansion; and the completion of important new projects is expected to result in a very rapid growth of output of mineral oils, natural gas and cement. Within the engineering industries, which will provide about 45 per cent of exports in 1965 (38 per cent in 1958), output of metal-cutting machine tools and chemical equipment is planned to rise especially fast; and other machine tools, electrical and telecommunications equipment and precision instruments also show rates of growth above the average for the branch. In contrast, the expansion of the metallurgical branches is to slow down quite noticeably, reflecting plans both for rising imports and for reductions in the metal content of output in other sectors.

As has already been mentioned, Poland is unique, among the countries for which plans for the years up to 1965 are available, in showing practically identical planned rates of growth for consumers' goods and investment goods. However, output of chemicals is intended to rise — as in the recent past — faster than that of any other separately identified industrial branch, and engineering and building materials are the other sectors of most rapid growth (see Table 15).

The balance of the Polish industrial expansion plan for the whole " perspective " up to 1975 is determined largely by the expectation of unfavourable conditions for traditional Polish exports and consequent balance-of-payments difficulties. This leads to plans for a rapid expansion of output of engineering products for export (they are expected to provide 39 per cent of total exports in 1965 compared with 27 per cent in 1958) and also to high priority for " import-saving " production, and for development of national raw material resources in particular. In these latter branches, the limits to the planned expansion are set primarily by technological and organizational factors. The coal production target is thus the maximum considered possible, given the capital cost of sinking new pits, known brown coal reserves and expected supplies of mining labour; availability of coking coal is one factor limiting the possible growth of steel output; availability of scientific and skilled manpower is one limitation in the chemicals branch; long-term conservation considerations limit the plans for timber felling.[84]

Among the 1965 targets set for output of individual products in Poland, particularly high rates of growth are shown for brown coal and natural gas, some basic and newer chemical products (sulphuric acid, fertilizers, synthetic fibres, plastics and the initiation of

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[84] See M. Kalecki, " The 1961-1975 Long-run Economic Plan ", *Polish Perspectives*, No. 3 (11), Warsaw, March 1959.

Sources and methods : See Appendix B.

NOTE. — For explanation of periods covered see note to Table 1. Data in the last two columns are based on values of gross industrial output at the prices of 1 January 1954 in Hungary; at 1 July 1954 prices in Czechoslovakia; at " current " (probably 1958) prices in eastern Germany; at 1958 prices in Poland; and 1 July 1955 prices in the Soviet Union.

[a] All figures for Czechoslovakia in this column are for 1957.

[b] Group A, producers' goods;
Group B, consumers' goods.

[c] East German data are in current prices.

[d] Centrally managed industry only.

[e] The coverage of the data changed somewhat after 1955.

[f] State industry only.

[g] All figures for Poland in this column are 1950-1955 average rates.

[h] In calories, excluding atomic energy; 1959 in value at 1955 prices.

[i] *Planovoe khozyaistvo*, No. 7, 1959, p. 35, states the increment over the plan period as 67.1 per cent, in a table, but also as 68.7 per cent, in the text.

[j] " Cultural and amenity goods " described as including watches, clocks, bicycles, sewing machines, cameras, gramophones, radio and television sets, refrigerators, washing machines, etc. The category is probably equivalent to metal-made consumers' goods.

[k] Original plan. The revised plan 1959-1961, published 16 October 1959, gives an annual rate of growth during 1959-1961 of 12.3 per cent.

synthetic rubber production), a wide range of equipment (steam turbines and transformers, textile machinery, food-processing equipment, tractors, motor vehicles and ships) and most durable consumer-goods.

Energy

It seems that, for eastern Europe as a whole, the percentage rise in energy output from 1958 to 1965 will be almost exactly the same (37 per cent) as in the preceding seven years; and in the Soviet Union the rate of increase will fall from 90 per cent to 65 per cent (see Table 16). The level of energy production and consumption in the area per head of the population is already higher than in western Europe, and the gap is likely to become wider by 1965. However, these economies will, even then, be considerably less energy-intensive than is the United States.[85]

Energy per head of population

(in tons of standard fuel)

		1951	*1958*	*1965 Plan*
Production:	Eastern Europe . .	2.23	2.87	3.62
	Soviet Union . . .	1.87	3.13	4.68
	OEEC area . . .	2.07	2.14	2.22
Consumption:	OEEC area . . .		2.74 [a]	3.34

Sources : Tables 16 and 17; and population statistics and projections cited in Appendix B.

[a] 1955.

While in some degree the difference from western Europe may be attributable to a more rigorous climate, the basic explanation is the heavy dependence of eastern Europe (though no longer of the Soviet Union) upon coal when western Europe has turned to petroleum; ease of regulation in combustion and higher heat-release potential make oil more efficient than coal, calorie for calorie. Since the trade in fuel of eastern Europe and the Soviet Union has preponderantly been among themselves, it is possible to compare the production pattern of this area with the consumption pattern of the OEEC area — the latter using, of course, very much imported oil:

	Percentages					
	1951		*1958*		*1965 estimate*	
	Coal	*Oil and gas*	*Coal*	*Oil and gas*	*Coal*	*Oil and gas*
Production:						
Eastern Europe	88	8	85	12	83	14
Soviet Union .	65	20	58	30	42	49
Total	73	15	66	25	53	39
Consumption:						
OEEC area . .	..	..	69 [a]	21 [a]	53	34

Sources : Tables 16 and 17.

[a] 1955.

Taken as a whole, the energy pattern of eastern Europe and the Soviet Union closely resembles that of western Europe; and the shift to oil and natural gas that will take place in the next seven years is proportionately the same as is envisaged for western Europe.[86] This similarity, however, conceals a greater reliance on

TABLE 16

Production of primary energy in eastern and western Europe and the Soviet Union 1951, 1958 and 1965 Plan

Millions of tons of standard fuel (7,000 Mcal)

	Coal	Petroleum	Natural gas	Hydro-electricity	Other fuels	Total
Albania						
1951	0.03	0.16	0.01	—	0.14 *	0.3
1958	0.13	0.55	0.02	0.04	0.17	0.9
1965 Plan . .	0.26	3.42	0.30	0.18 *	0.2 *	4.4
Bulgaria						
1951	3.30	—	—	0.20	..	5.3 *
1958	6.60	0.31	—	0.48	..	9.3 *
1965 Plan . .	21.9	..	—	3.3 *	..	28.1 *
Czechoslovakia						
1951	31.15	0.11	0.06	0.37	0.61	32.3
1958	51.06	0.16	1.42	1.05	0.46	54.2
1965 Plan . .	68.28	0.17	3.01	1.44	0.72	73.6
Eastern Germany						
1951	48.60	—	—	0.18 *	0.64	49.4
1958	67.4	—	—	0.25	0.16	67.8
1965 Plan . .	87.0	—	—	0.25 *	..	87.5 *
Hungary						
1951	8.30	0.71	0.13	0.01	0.35	9.5
1958	11.61	1.19	0.13	0.03	0.34	13.3
1965 Plan . .	13.6	2.50	0.39	0.36	0.29	17.1
Poland						
1951	83.5	0.3	0.4	0.4	2.8	87.4
1958	97.3	0.3	0.5	0.5	2.3	100.9
1965 Plan . .	121.1	0.3	1.3	0.5	2.2	125.4
Rumania						
1951	2.3	8.88	5.01	0.10	1.47	17.8
1958	3.2	16.22	10.33	0.14	1.32	31.2
1965 Plan . .	4.0 *	20.0 *	20.0 *	..	..	45.6 *
Eastern Europe						
1951	*177.2*	*10.2*	*5.6*	*1.26*	*7.81*	*202.0*
1958	*237.3*	*18.6*	*12.4*	*2.49*	*6.65*	*277.6*
1965 Plan . .	*316.1*	*27.3*	*25.0*	*6.31*	*6.9*	*381.7*
Soviet Union						
1951	221.9	60.4	7.9	4.9	47.7	342.8
1958	375.4	161.9	33.9	18.2	58.5	647.9
1965 Plan . .	451.1	343.2	177.9	29.5	69.3	1 071.0
OEEC area						
1951	*491.4*	*6.7*	*2.2*	*46.3*	*20*	*566.6*
1958	*504.6*	*17.9*	*10.0*	*70.7*	*20*	*623.2*
1965 Plan . .	*505*	*30*	*25*	*95*	*20*	*675*

Sources and methods : See Appendix B.

NOTE. — The totals by source and by country include estimates for entries marked as not available. Nuclear energy is omitted.

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[85] Energy consumption per head in the United States is approximately 10 tons of standard fuel.

[86] Within total coal production there will be a marked shift towards coking coal. According to I. Oleinik *(Voprosy ekonomiki*, No. 9, 1959, p. 101) output of hard coal in the CMEA area is intended to rise by 21 per cent from 1958 to 1965 and output of coking coal alone by 53.5 per cent.

Table 17

Apparent consumption of primary energy in selected European countries with projections for 1965

		Production	Net imports (+) or exports (−)			Total	Apparent consumption			
			Coal	Petroleum and gas	Electric power		Coal	Petroleum	Natural gas	Hydro-electricity
		Millions of tons of standard fuel (7,000 Mcal)					Percentages			
Czechoslovakia	1955	41.17	+6.09	+1.63	+0.72	49.61	91.9	3.6	0.4	3.0
	1965 Plan	73.62	+0.24	+8.93	+1.42	84.21	81.4	10.8	3.6	3.4
Hungary	1951	9.51	+0.46	+0.14	—	10.14 [a]	86.4	8.4	1.3	0.1
	1958	13.29	+1.16	+1.31	+0.14	16.00 [a]	79.8	15.6	0.8	7.3
	1965 Plan	17.14	—— 3.70 ——		+0.48	21.32	71.9 [b]	19.8 [b]	3.1	3.9
Poland	1951	87.4	−27.1	+1.2	..	61.5	91.7	2.3	0.8	0.6
	1958	100.9	−17.2	+3.0	—	86.7	92.4	3.5	0.9	0.6
	1965 Plan	125.4	−17.3	+6.8	—	114.9	90.4	5.8	1.5	0.4
Soviet Union	1958	647.9	−6.5	−20.6	—	620.8	59.4	22.8	5.4	2.9
	1965 Plan	1 071.0	..	..	..	1 030 * [c]	43.0	29.1	17.2	2.8
OEEC Area	1955	*603*	*+28*	*+146*	—	*777*	*68.9*	*20.5*	*0.9*	*7.2*
	1965 estimate	*675*	*+35*	*+295*	—	*1 020* [c]	*52.9*	*31.4*	*2.9*	*9.3*

Sources: See Appendix B.

Note. — The table ignores small quantities of boranes and fluorides which, by reason of their high heat-release potential, would make a significant contribution in special applications by 1965. 1965 plans for the import of fuel wood (if any) are not known. Imports of electricity have been added to hydro-electricity generation. Hence the primary share of this source in consumption is exaggerated in the case of Czechoslovakia and Hungary to the extent that it originates in foreign thermal plants.

[a] Includes imports of fuelwood (0.03 in 1951, 0.10 in 1958).

[b] The distribution of imports between coal and oil has not yet been decided. To compare the percentages a notional allocation was made in the proportion of 1958 imports. However, the share of petroleum is in fact likely to be higher.

[c] Includes estimates of nuclear energy (10 for Soviet Union, 15 for OEEC Area).

oil and gas in the Soviet Union and, conversely, a greater reliance on coal in eastern Europe. In the Soviet Union a radical reorientation of the consumption pattern has occurred in the last few years: in 1955 the 65 per cent share of coal in the fuel balance (excluding hydro-power which was expanding rapidly) was the same as in 1951, but it had shrunk below 60 per cent by 1958. The shift is to be further stimulated during the Seven-year Plan; and the expansion of oil production (with the construction of pipelines from the rich Volga deposits to Poland, eastern Germany, Czechoslovakia and Hungary already mentioned in section 3) will help eastern Europe towards making a similar move. The eastern European degree of choice in making this move is in effect limited by the possibility of such imports, as they expect to raise their own production of oil and gas only to 14 per cent of the total by 1965 — against 12 per cent in 1958.[87] As Table 17 shows, the shift away from coal in the three countries which have published projections of consumption in 1965 is significant only in Czechoslovakia and Hungary — around one-tenth in each case.

Only the Soviet Union, moreover, has yet the possibility to utilize on a substantial scale energy derived from other than the traditional fuels, although by 1965 nuclear reactors should be generating power in Czechoslovakia and eastern Germany and experimental installations will exist in other countries. Hydro-electricity and nuclear power are the two newer sources of energy which can be of significant use in the immediate future in the Soviet Union, although others are in the more distant offing.[88]

The more than doubling of Soviet electric power production is, however, to be achieved mainly through the construction of new thermal stations. The past controversy regarding the relative weight to be given to a short maturing period as compared with other elements in the calculation of investment costs and yields in this sector seems to have been resolved, at least temporarily, in favour of priority for quick returns;[89] but increased use of open-cast coal, natural gas and oil in thermal stations is expected to reduce the former gap between their operating costs and those of hydro-electric plants. The change of emphasis is marginal. Out of 58-60 million kW of new turbine capacity to be installed under the plan, 81-83 per cent will be thermal, whereas in the previous seven years thermal plants had formed 76 per cent of the 31 million kW of additional capacity net of retirements. By reducing the construction period (from the start of work to the operation of the first generator) for thermal stations to 2½ or 3 years from 5-7 years (and 7 years and more for hydro plants), the rate of commissioning should be smoother: just under 8 million kW a year will come into operation during 1959-1962 and just over 10 million kW during 1963-1965. In the previous seven years the corresponding figures were 3.8 million and 5.4 million.

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[87] The figures used for Rumanian oil and gas, a plan for which has not yet been published, are realistic minima, but the absolute increment these imply is roughly the same as that to be furnished by Albania, the sextupling of whose output by 1965 should be regarded as a realistic maximum.

[88] The artificial satellites and the Moon-strike make clear the advance in synthetic propellants; the opening of a 1,200 kW solar-energy electricity station near Mount Ararat, the All-Union geothermal conference and the surveys of tidal potential on the White Sea — where the bore reaches 30 feet — are evidence of exploration in other fields.

[89] For an account of the 1958 argument on the economic merits of thermal versus hydro power development, and its conclusion, see *Economic Bulletin for Europe*, Vol. 10, No. 3, pp. 36-38.

The plan envisages electrification of 20,000 kilometres of railway line [90] — raising electricity from 5 per cent to 32 per cent of railway energy consumption — and the quadrupling of agricultural consumption of electric power. Nearly all state farms, but rather less than half the collective farms, had electricity at the start of the plan, but all are to be supplied by 1965. Much of their current is, as at present (approximately two-thirds), to come from their own generators and the sharing of such investment by groups of farms is to be further encouraged. Transport consumption will nevertheless remain at about 4 per cent of total generation and agricultural consumption rise from 2½ per cent to nearly 5 per cent. This increase will be compensated by a slower-than-average rise of consumption in the building industry, for street lighting and household use, and even by a trimming of industrial use. An Appeal of the Party Central Committee, published on 26 November 1959, has called for greater economy and efforts to reduce grid losses and power-station consumption — 11.9 per cent in 1958 and 12.1 per cent in the 1965 plan.

Among the eastern European countries covered by the data in Table 17, the import surplus of energy will rise by 1965 in Czechoslovakia and Hungary, as it certainly will in eastern Germany also,[91] and the Polish export surplus will diminish. All these countries will substantially increase their dependence on imports of oil, mainly from the Soviet Union; but they also plan considerable increases in energy production. In Poland, as has been mentioned, the intention is to raise coal output fast with special emphasis on brown coal and coking coal. In Czechoslovakia it is hoped to improve the efficiency of exploitation of lower-grade brown coal deposits by their use for locally-sited electricity generation, and similar developments are planned in eastern Germany where gas consumption is, however, expected to rise even faster than that of electricity. In both countries the first atomic power stations will start operation during the plan period. In Hungary primary energy production is to shift away from high-cost coal to low-cost oil and natural gas; electricity generation and oil refining will be greatly expanded, and atomic power stations totalling 300-500 MW capacity are scheduled for completion during 1966-1975. The need for more efficient use of fuel, and particularly for saving of coal, is repeatedly stressed.[92]

Co-operation in utilizing the fuel and power resources of the area has been developed to some extent, under the auspices of the Council for Mutual Economic Assistance, and a number of schemes for joint financing of exploitation of coal deposits, for hydro or thermal power development, for gas and oil pipelines and oil refinery development, have been started or are planned for the near future.[93]

Ores and Metals

Although metals production is not one of the most rapidly growing branches in any country's production plan, the tendency is still to develop additional steel capacity everywhere and to expand non-ferrous metals output about as fast as domestic deposits in each country and technical limitations permit. Several joint projects in the latter field are being undertaken and have been reported in the *Economic Bulletin for Europe*.[94]

As can be seen from Table 18, production of crude steel in the whole area is expected to rise by some 60-70 per cent between 1958 and 1965;[95] but the rate of growth in the Soviet Union, and its share in the total output of both crude and finished steel in the area, will fall slightly. The rates of growth shown in the table compare with increases of 55 per cent in production

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[90] *Ibid.* and Chapter IV, section 2.

[91] The east German plan provides for imports during 1960-1965 from the Soviet Union alone of 17 million tons of crude oil, 32 million tons of hard coal and 8 million tons of coke, as compared with imports from all sources in 1958 of 1.1 million, 7.8 million and about 3 million tons respectively. The oil imports will be concentrated in the last two years or so of the plan, when the pipeline comes into operation; and this import figure for the six years consequently shows a much higher dependence on the Soviet Union in 1965 than in 1958. Coal imports are, on the other hand, more likely to be spread throughout the period, and it is significant that the annual average is only some 12 per cent above 1958 imports from the Soviet Union (5.3 million tons against 4.8 million tons).

[92] Nearly 1.3 million tons of coal a year is to be saved by the extension of electric and diesel traction; the Vác cement works is planned to use 40 per cent less coal per unit of output than existing plants, and consumption per unit of output in coal-burning boiler plants should be cut by 11 per cent (*Népszabadság*, 15 November 1959; *Közgazdasági Szemle*, No. 10, 1959, p. 1021; *Társadalmi Szemle*, No. 10, 1959, p. 124).

[93] For details see section 3 above and the *Bulletin*, Vol. 11, No. 1, pp. 64-65.

[94] Vol. 11, No. 1, pp. 63-64.

[95] According to I. Oleinik (*Voprosy ekonomiki*, No. 9, 1959, p. 101) output of steel tubes in the CMEA area will rise by 90 per cent and of " steel and rolled products " by 70 per cent.

TABLE 18

Planned production of steel in eastern Europe and the Soviet Union

Millions of tons, and percentage increases

	1958	1965	1951 to 1958	1958 to 1965
	Million tons		Percentage increases	
Crude steel				
Bulgaria	0.21	0.90	2000	329
Czechoslovakia	5.51	10.52	59	91
Eastern Germany	3.04	4.63	96	52
Hungary	1.63	2.4	26	47
Poland	5.66	9.00	103	59
Rumania	0.93	ca. 3 *	45	ca. 243
Total six countries	16.98	30.45	75	79
Soviet Union	54.87	86-91	75	57-66
TOTAL	71.85	116.5-121.5	75	62-69
Rolled products (including tubes)				
Bulgaria	0.14	0.70-0.80	1300	400-471
Czechoslovakia	4.28	8.20	64	92
Eastern Germany	2.30	3.50	107	52
Hungary[a]	1.08	ca. 1.6 *	64	48
Poland[a]	3.70	6.05	89	63
Rumania	0.78	ca. 2.5 *	50	221
Total six countries	12.28	22.6-22.7	79	84-85
Soviet Union	42.93	65-70	79	52-63
TOTAL	55.21	87.6-92.7	79	59-68

Sources : Appendix Table II; and *Economic Bulletin for Europe*, Vol. 11, No. 1, Appendix Tables I and V.

[a] Excluding tubes.

and 62 per cent in consumption of crude steel registered in the OEEC countries from 1951 to 1957, and with a rise of 7 per cent in output and of 3 per cent in consumption in the United States during the same years. In 1958 output and consumption fell in both areas. By 1965 per capita output of crude steel in the Soviet Union should reach 376-397 kg, in eastern Europe 290 kg, and in the whole CMEA area some 348-363 kg, compared with per capita consumption in 1958 of some 443 kg (output 444 kg per capita and 77 million tons in total) in the United States and 228 kg (output 287 kg per capita and 84 million tons in total) in the OEEC area.

Great stress is laid in Czechoslovakia on the achievement of the targets for output of steel and rolled products " by which the forthcoming Five-year Plan stands or falls ".[96] The original investment allocation to this sector has recently been raised — to the 20 per cent of the total for all industry mentioned above — and important new capacities are scheduled for early completion.

In eastern Germany the emphasis is on qualitative improvements in steel output within the overall growth of just over 50 per cent, with tenfold increases in production of stainless and heat-resisting steels, a fourfold expansion of production of ball-bearings and a fivefold rise in output of certain special steel alloys.

Poland is contemplating fairly large increases in output of both ferrous and non-ferrous metals, the former limited mainly by expected availability of coking coal but nevertheless meeting domestic demand for rolled products with a rising net surplus for export. Polish zinc output will be doubled by 1965; and a trebling of output from the recently established aluminium industry will raise Polish aluminium production above that of Hungary by 1965. The latter country, indeed, shows relatively slower planned rates of expansion in the metallurgical branches generally than do others, intending to rely on imports for about 10 per cent of its increasing needs and to reduce metal inputs per unit of related fabricating output through a shift from ' heavy ' to more highly fabricated products.

In Albania the mining of chrome, copper and nickel-iron ores will continue to expand, and during the Third Five-year Plan a chemical-metallurgical combine will be erected " for the complex exploitation of copper ore, and to produce sulphuric acid and chemical fertilizer ".[96a]

Chemicals

As has already been noted, the main elements in the very large programmes of expansion in the chemicals branches are, first, large increases in output of synthetic fibres, plastics and synthetic rubber — made possible in the eastern European countries only by rising imports of oil and natural gas, together with domestic exploitation of available supplies of these fuels — and, secondly, rapid expansion of fertilizer production in support of the agricultural plans. In addition, most countries, and especially Poland, plan a substantial development of any domestic sources of supply of basic chemicals. A certain amount of specialization has been agreed, in consultation within the CMEA, but every country plans to build up a substantial and fairly diversified chemicals industry. For the CMEA area as a whole, chemicals output is expected to be approximately three times the 1958 volume by 1965, and a number of joint projects are being undertaken.[97] The planned increases in production of synthetic fibres and

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[96] First Deputy Premier J. Dolanský (*Lidová Demokracie*, 6 November 1959).

[96a] *Ekonomia popullore*, No. 4, 1959, pp. 18-25.

[97] Two of these were described in the *Bulletin*, Vol. 11, No. 1, p. 64.

TABLE 19

Planned production of synthetic fibres and plastics in five countries

Thousands of tons, and percentage increases

	1958	1965	1951 to 1958	1958 to 1965
	Thousand tons		Percentage increases	
Synthetic fibres				
Czechoslovakia	1.5	21.1	88 [a]	1 326
Eastern Germany	6.7	38.9	426 [b]	481
Hungary	0.3	3.6	..	1 100
Poland	2.3	29	..	1 160
Soviet Union	12.5	169	700 *	1 252
Plastics				
Czechoslovakia	47.8	183.9	..	285
Eastern Germany	93	311	..	234
Hungary	11 [d]	45	..	309
Poland [e]	28.8	164	1 700	469
Soviet Union	206 [f]	..	175 [g]	600

Sources: Appendix Table II; *Rudé Právo*, 29 September 1959; *Népszabadság*, 12 April 1959; and *Planovoe khozyaistvo*, No. 2, 1959, pp. 18-24.

[a] Increase from 1953.
[b] Perlon only.
[d] 1957.
[e] Including products.
[f] 1956.
[g] 1950 to 1956.

plastics are shown in Table 19, and of fertilizers in Table 20.

The tremendous investment in capacity for synthetic fibres and plastics planned in the Soviet Union (39 per cent of all investment in chemicals against 20 per cent during 1952-1958), and the revolutionary change in the pattern of output, have been noted in section 3. Plastics will replace metal inputs into the engineering industries to a significant extent, and reliance on the newer synthetic fibres is to be greatly increased, as the following examples show:

	Percentage share in output of man-made fibres		*Percentage share in motor-tyre cord*	
	1958	*1965*	*1958*	*1965*
Viscose and cuprammonium fibres	91.0	65.6	44.7	58.4
Acetate fibres	1.5	9.0	—	—
Synthetic fibres	7.5	25.4	2.8	29.6
Cotton			52.5	12.0

Source: Planovoe khozyaistvo, No. 2, 1959, pp. 19-20.

The planned quadrupling of total man-made fibre production during the plan period contrasts markedly with the rise of about one-third planned for output of cotton fabrics and of two-thirds for woollen fabrics.

In eastern Europe, eastern Germany will retain first place, after the Soviet Union, as a producer of synthetic fibres and in plastics. Synthetic rubber production will be introduced during the plan period in Czechoslovakia, and was started in Poland in 1959, and output of synthetic materials in general will be rapidly expanded in the former country.

The chemicals industry, as noted above, is to absorb nearly 20 per cent of all industrial investment in eastern Germany [98] under the Seven-year Plan and only slightly less in Czechoslovakia. The expansion of east-German petro-chemicals production is to be supported by the immensely increased imports of oil from the Soviet Union already mentioned, and the major emphasis of the production plan is on synthetic fibres and plastics. However, output of sulphuric acid — of which eastern Germany, the Soviet Union and Poland are the only large producers in the area — and of phosphate fertilizers is to be approximately doubled. Much of this expansion of east-German chemicals production is to be directed towards export markets, and total exports of chemical products are expected to double during the seven years.

The other major eastern European producer of sulphuric acid — Poland — is also to double its output between 1958 and 1965, by increasing exploitation of domestic deposits of natural sulphur, and plans to develop synthetic fibre production rapidly. In Hungary (planning to import caustic soda and natural gas as well as petroleum) the main emphasis of the chemicals programme is on fertilizer output, though capacity

TABLE 20

Planned production of chemical fertilizers in five countries

Thousands of tons (pure content), and percentage increases

		1958	1965	1951 to 1958	1958 to 1965
		Thousand tons		Percentage increases	
Czechoslovakia	N	108	293	199	171
	P_2O_5	117	285	105	143
Eastern Germany	N	320	386	27	21
	P_2O_5	136	284	312	109
	K_2O	1 528	2 128	8	39
Hungary	N	31	124-155	129	300-400
	P_2O_5	33	107	44	225
Poland	N	228	480	186	111
	P_2O_5	154	360	91	134
Soviet Union—All chemical fertilizers [a]		(12 400)	(35 000)	110	182

Source: Appendix Table II.

[a] Gross weight in the following standard units: nitrogenous fertilizer in terms of sulphate of ammonia (21 per cent N); phosphorus fertilizer 19 per cent P_2O_5 content; potash fertilizer 41.6 per cent K_2O content.

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[98] Apparently oil refining is included in the chemicals industry in eastern Germany.

sufficient to establish production of synthetic materials on a modest scale will be introduced during the plan period.

In the four eastern European countries for which data are available, the increases predicted in fertilizer production would permit an average level of application per hectare of sown area in 1965 (assuming no net imports or exports) of 41-42 kg of nitrogenous fertilizer and 33.5 kg of phosphorus fertilizer compared with 22.5 kg and 14.5 kg respectively in 1958. In the Soviet Union, the planned increase in fertilizer supplies by 1965 will permit the application of an average of 12.2 kg of nitrogenous fertilizer per hectare of sown area. For the whole OEEC area, the comparable 1958 figures were 24.2 kg for nitrogenous and 29.3 kg for phosphorus fertilizer, but in the more advanced countries rates were much higher. In the European Economic Community, for example, the average application per hectare under crops was 41 kg and 53 kg respectively.

Machinery and Equipment

The agricultural programmes require not only increased inputs of fertilizers but also further mechanization; and this is reflected in the plans for output of tractors and other agricultural machinery (see Table 21 and the next sub-section).

Equipment for the chemicals industry will naturally be a pressing need in every country, and production in the whole CMEA area is expected to be nearly three-and-a-half times as great in 1965 as in 1958. The Soviet Union is the major producer in the area; but Czechoslovakia and eastern Germany will also produce such equipment on a large, and very rapidly expanding, scale and Polish output will rise.[99]

Electricity generating equipment will be installed on a large scale in all countries of the area during the plan period. Output of turbines is to be approximately trebled in the Soviet Union and in the main eastern European producing countries, and output of other electrical equipment will also rise very fast in the Soviet Union and elsewhere. In Czechoslovakia output of all " energy equipment " is to rise in value by 150 per cent between 1958 and 1965. Concurrent programmes for railway electrification and diesel traction will raise output of electric and diesel locomotives by 1965 to more than double the 1958 level in the Soviet Union; in Czechoslovakia output will rise to more than seven times, and in Poland to more than three times, that level. In eastern Germany production of diesel-electric locomotives will be started during the plan period while output of electric locomotives will continue to grow.

Production of metal-cutting machine tools will continue to rise rapidly in all countries for which data are available, and in this field an increased degree of specialization is being achieved as a result of agreements reached in the Council for Mutual Economic Assistance.

Outside the branches of the engineering industry mentioned above, in which rapid expansion is virtually universal in the CMEA area, the pattern of growth varies from country to country. In the Soviet Union, the extension of automation on a large scale will require rapid development of production of the necessary equipment — for example, the raising of production of electronic computers and similar machines to nearly five times the 1958 level by 1965, and the installation of fully and partially automated production lines at the rate of 280-300 a year by 1965 (compared with 130 in 1958).

In Hungary, as in eastern Germany and to a lesser extent in Poland, the development of the less metal-intensive branches of engineering output is a major objective of policy. Improved casting, forging and pressing techniques and substitution of plastics for metals, together with a change in the pattern of commodity output, are expected to reduce metal imputs per unit (value) of gross output by 15 per cent in Hungary between 1960 and 1965.[100] The planned change in the pattern of output involves the quintupling of production of metal-cutting machine tools already mentioned, and a more than doubling of output of high tension electrical equipment, telecommunications equipment and precision instruments.

The east German engineering industry is to raise the average value of output in relation to input of metals by expanding the share in total output of high-value products, such as precision instruments, electronic equipment, a wide range of electrical equipment and consumers' durable goods; but it also has to contribute steel pipe and some heavy equipment on a very considerable scale. However, the widely differing rates of growth of the three main branches of engineering shown in Table 15 indicate a marked change in the pattern of output away from the heavy engineering branch.

Poland plans a particularly rapid expansion of shipbuilding and of output of textile machinery, in addition to the products already mentioned above as being given a virtually universal priority. The increased output of textiles machinery is to provide both for major re-equipment of the Polish industry and for exports and, in general, Polish equipment needs are to be covered from domestic production to a somewhat greater extent than in the past. It is hoped considerably

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[99] For further details see the *Bulletin*, Vol. 11, No. 1, pp. 62-63.

[100] *Társadalmi Szemle*, No. 10, 1959, pp. 119 and 121. Consumption of steel per unit of reinforced concrete construction is to be cut by 24-28 per cent.

TABLE 21

Planned production of major items of machinery and equipment

Quantities and percentage increases

	Quantities		Percentage increases 1958 to 1965
	1958	1965	
Steam and hydro turbines (MW)			
Czechoslovakia	964	2 590	169
Eastern Germany (steam only)	505	1 606	218
Poland (steam only)	53.4	550	938
Total above	1 522	4 696	208
Rumania	23	..	..
Soviet Union [a]	6 600	18 700-20 400	183-209
Rolling-mill equipment (thousand tons)			
Czechoslovakia	20.5	59.2	189
Poland	12.1	22.0	82
Soviet Union	86.0	200-220	133-156
Metal-cutting machine tools			
Czechoslovakia (thousands)	27.5	63.0	129
Eastern Germany (million DM) [b]	444	1 128	154
Hungary (thousands)	7.1	37.3	426
Poland (thousands)	19	27.0	42
Soviet Union (thousands)	138.6	190-200	37-44
Chemical equipment			
Czechoslovakia (thousand tons)	41.1	255.9	523
(million Kčs) [c]	409.2	2 268	454
Eastern Germany (million DM) [b]	201	506	152
Hungary [d]	..	..	300
Poland (thousand tons)	31.5	59	87
Soviet Union (thousand tons)	132	..	..
(billion roubles)	1.1	3.5-3.7	218-236
All CMEA countries	..	..	ca. 240
Construction equipment			
Czechoslovakia (million Kčs) [c]	184	482.1	162
Eastern Germany [e] (million DM) [b]	171	349	104
Poland (thousand tons)	34.3	51	49
Tractors (thousands)			
Czechoslovakia	24.6	43.1	75
Poland	4.4	20	355
Other agricultural machinery			
Czechoslovakia [f] (million Kčs) [c]	829	1 380	66
Eastern Germany [f] (million DM) [b]	368	829	125
Poland (million zlotys) [g]	1 322	2 200	66
Electric and diesel locomotives (units)			
Czechoslovakia	112	790	605
Eastern Germany (diesel electric only)	—	183	..
Poland	98	335 [h]	242
Soviet Union	1 056	2 250-2 700	113-156

Sources : Appendix Table II; *Népszabadság*, 12 and 16 November 1959; *Economic Bulletin for Europe*, Vol. 11, No. 1, pp. 62-63, and appendix tables.

[a] Including gas turbines.

[b] At current prices.

[c] At July 1954 prices.

[d] Including equipment for food industries.

[e] Earth-moving equipment only.

[f] All agricultural machinery, including tractors.

[g] At 1956 prices.

[h] Including some for export without motors.

TABLE 22

Supplies of chemical fertilizers and tractors to agriculture in 1958 and 1965

	Fertilizers			Tractor supplies			
	in kilogrammes (pure content) per ha of arable land			Unit	Total deliveries	Stock	
	Type	1958	1965		1959-1965	1958	1965
Czechoslovakia	N	17.9	69.6	Thousands . .	124	62	144
	P_2O_5	21.7	37.4	Ha [a] per tractor		83	36
	K_2O	41.9	76.2				
Eastern Germany [b]	N	33.5	53	Thousands . .	74.4 [c]	37 [d]	. .
	P_2O_5	30.9	52	Ha [b] per tractor		174 [d]	. .
	K_2O	80.4	107				
Hungary	Total	18.5 [e]	60 [e]	Thousands . .	. .	26.6	62-63
				Ha [e] per tractor		216	93
					1960 to 1965		
Poland	N	12.4	27.2	Thousands [f] . .	112	58.3	135
	P_2O_5	9.3	22.2	Ha [a] per tractor [f]		274	117
	K_2O	14.4	28.5				
					1959 to 1965		
Soviet Union	N	3.5 [g, h]	11 * [g]	Thousands . .	1 000	966	. .
				Ha [i] per tractor		203	123 [j]

Sources : Plans; statistical yearbooks and bulletins; *Zemědělská Ekonomika*, No. 1, 1960; *Wirtschaft*, 28 January 1960; *Mezögazdasági statisztikai zsebkönyv*, 1959; *Társadalmi Szemle*, No. 10, 1959; and *Trybuna Ludu*, 23 June 1959.

[a] Hectares of arable land.

[b] Per hectare of all land under cultivation and permanent pasture, for all data except total deliveries and stock of tractors.

[c] Deliveries to socialist sector only.

[d] MTS stocks only.

[e] Per hectare of all land under crops (including gardens, orchards and vineyards).

[f] Tractors of over 15 h.p.

[g] Production.

[h] 1957.

[i] Hectares of sown area.

[j] Assuming an average life of 12 years.

to raise the value of output of the engineering industry per ton of metal input, partly through the rapid growth of output of particularly high-value products such as consumers' durable goods.

Czechoslovakia seems, like the Soviet Union, to show a fairly general expansion of the engineering sector. Major emphasis is placed on those priority branches already mentioned; but heavy engineering output in general is to grow rapidly (output of foundry equipment rising to $3^1/_3$ times and equipment for the building materials industries to five times the 1958 levels), together with equipment for the light industries (showing a 170 per cent increase) and production of precision instruments and of equipment required for the start of an automation programme.

Inputs into Agriculture

As has been noted in section 3, agricultural investment is to be considerably increased under all the new long-term plans; and such statistical data as are available on planned tractor stocks and supplies of fertilizers in 1965 are assembled in Table 22.

In the Soviet Union, fertilizer supplies will apparently increase only slowly in the first three years of the plan period;[101] but by 1965 production will be adequate for the application of some 11 kg. of nitrogenous fertilizer per hectare of arable area.

Supplies of mineral fertilizer in the Soviet Union

Thousands of tons and kilogrammes per hectare of arable area

	1958	*1960 Plan*	*1961 Project*	*1965 Plan*
All chemical fertilizers (standard units, gross weight) :				
Production—total	12 420	13 500	. .	35 000
Supplies to agriculture:				
total	10 626	. .	. .	31 000
per ha	48.3	49.3	52	134
N pure content :				
Production—total	764 [a]	. .	. .	2 500
per ha . . .	3.5 [a]	. .	. .	11 *

Sources: *Der Aussenhandel*, No. 14, 1959, p. 31; *Udobrenie i urozhai*, No. 8, 1959, pp. 3 and 4; *Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 224 and 444 and 1960 Plan. (See also Table 20.)

NOTE. — In 1958, total supplies to agriculture of nitrogenous fertilizer were 686,000 tons. In the original text future supplies were described as " projects " — i.e. not confirmed as part of a state plan.

[a] 1957.

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[101] " The insignificant increase in the production of mineral fertilizer during the first years of the Seven-year Plan is explained . . . by delays in the construction of new plants. The development of production of superphosphate, moreover, is limited by the existing resources of sulphuric acid and phosphate raw material. At the present time, because of shortage of sulphuric acid (greatly used for other industrial purposes), the capacities of the existing superphosphate plants are not fully utilized." (*Udobrenie i urozhai*, No. 8, 1959, p. 4.)

The concentration of the bulk of supplies on a few crops — cotton in particular — will be less extreme by 1965 than in the past, and will permit about six times the present low rate of application to grains:

Kilogrammes of mineral fertilizer per hectare of sown area in the Soviet Union in 1957

	Total mineral fertilizers	*of which: Nitrogenous*	*N pure content*
	Standard units, gross weight		
Cotton	1 011	527	108.0
Sugar-beet	832	208	42.6
Flax	441	101	20.7
Potatoes	119	18	3.7
Grain (excluding maize)	12	2	0.4
All crops	54	15	3.1

Sources: *Selskoe khozyaistvo*, 30 November 1958, p. 2; and *Narodnoe khozyaistvo SSSR v 1958 godu*, p. 444.

In the four eastern European countries under review a far more intensive application of chemical fertilizers is planned; but the 1965 rates, except in eastern Germany, will still be far below those now ruling in the richer countries of western Europe, where application of natural manures is also generally higher (see Table 22 and p. 35 above).

Extensive land melioration schemes are also planned — in some countries devoted in part to making good the deterioration of earlier works. In Czechoslovakia, 190,000 hectares will be drained and 164,000 irrigated during the five-year plan period, equivalent to 7 per cent of the present arable area; and in eastern Germany new drainage and other melioration works will be undertaken on 550,000 hectares over the whole seven years ($8^{1}/_{2}$ per cent of the present agricultural area). In Hungary, the total irrigated area will be increased between 1960 and 1965 by 109,000 hectares (about 2 per cent of all arable and permanent grassland) to a total of 207,000, and soil melioration work will be undertaken on about 6 per cent of the total area.[102] Investment in land melioration in Poland during the five years of the plan will be more than double that in the previous comparable period (within a 54 per cent rise in total agricultural investment). About 3.2 million hectares will be affected — 16 per cent of all agricultural land and about 40 per cent of all land considered still to need melioration. Bulgaria plans to have a total irrigated area of 2 million hectares by end-1965 (40 per cent of the cultivable area) against 450,000 hectares in 1958.

In this field the Central Committee of the Albanian Workers' Party adopted in November [103] two resolutions on forestry and the rational use of timber and on irrigation. The first set a 1960-1975 target of improving 120,000 hectares of forest and of planting 60,000 hectares of new woods (of which 20,000 by 1965), in part for felling and partly to combat soil erosion. The outlay during the Third Five-year Plan would be 2,100 million leks of which the peasantry would contribute (in labour etc.) 40 per cent. The second resolution requires the irrigated area to rise from 106,000 hectares in 1958 to 201,000 in 1965 (39.9 per cent of the total), a raising of the current 73 per cent utilization of the irrigation network, and encouragement to farmers to grow on irrigated land those crops which respond best to irrigation, such as cotton.

The Czechoslovak, east German and Hungarian plans all provide for virtually complete collectivization of agriculture by 1965, starting from a situation in 1959 in which 16 per cent of all agricultural land was under individual peasant farming in Czechoslovakia, 47 per cent in eastern Germany and — at the beginning of the year — 63 per cent in Hungary (excluding communal pastures which were 7 per cent of the area and mainly served individual farmers). As already mentioned, one object of this institutional change, combined with further mechanization, is a significant transfer of farm labour into other employment. Poland, although an exception in that different institutional changes are contemplated during the period [104] and the agricultural labour force is expected to remain virtually stable, does not differ greatly from other countries in providing for considerable investment in farm mechanization, designed not only to save labour but also to permit a reduction in the numbers of farm horses (by 300,000) and in related fodder requirements. The Albanian Plan Commission's proposals for the Third Five-year Plan envisage complete collectivization of agriculture (by 1 January 1960, 83 per cent of the arable area and 70 per cent of peasant households were in collectives).

In addition to the increases in tractor stocks shown in Table 22, the number of hectares of grain area (in socialist agriculture alone) per combine harvester is to be reduced from 355 to 158 between 1960 and 1965 in Czechoslovakia; and large collective and state farms in eastern Germany are expected to be almost completely mechanized, for harvesting and milking, by 1965.[105] The following indications of the mechanization to be undertaken have been published in Hungary (percentages):

	1958	*1965*
Deep ploughing	28.5	..
Maize and potato hoeing	6.2	The greater part
Grain harvesting	19.3	65-70
Cutting of maize for silage	..	100

Sources: *A mezögazdaság eredményei 1958-ban*, p. 207; *Társadalmi Szemle*, No. 10, 1959, p. 126; *Közgazdasági Szemle*, No. 10, 1959, p. 1065.

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[102] *Társadalmi Szemle* No. 10, 1959, p. 125; *Közgazdasági Szemle*, No. 10, 1959, p. 1064.

[103] *Zeri i popullit*, 4 November 1959 (on forestry) and 5 November 1959 (on irrigation).

[104] Based on the " agricultural circles " (see Chapter II, section 1 *b* above, and the *Bulletin*, Vol. 11, No. 3, pp. 42-43).

[105] 100 per cent mechanical harvesting of sugar-beet and maize, and mechanical milking; 82-85 per cent mechanical harvesting of other grain and potatoes (*Deutscher Export Maschinenbau*, 1 October 1959).

The original plans for deliveries of machinery to Polish agriculture were raised as a result of reconsideration at the June Plenum of the Central Committee of the Polish United Workers' Party. The plan for deliveries of tractors during the seven years 1959-1965 was raised from 80,000 to 112,000, and that for tractor-driven machinery was doubled in value. This is intended to provide for mechanization of about one-third of all field work in private farms by 1965.

In the Soviet Union, the impressive increases in output achieved in 1958, as compared with the early 1950s, reflected quite exceptionally favourable weather conditions in 1958 and the stimulus afforded by increased farm prices. They also reflected a 23 per cent expansion of the sown area and a rise of more than 152 per cent in supplies of machinery, which increased from 18.7 billion roubles during the five years 1949-1953 to 47.2 billion during 1954-1958. Between 1959 and 1965 the extension of the sown area is expected to be no more than 8-9 per cent [106] and increases in machinery stocks will be less rapid than during 1954 to 1958:

Average annual supplies of machinery to Soviet agriculture

Thousands

	1949-1953	*1954-1958*	*1959-1965*
Tractors	74.4	133.6	142.9
of which : wheeled tractors .	19.2	64.4	125.0 [a]
Grain combines	41.6	74.8	57.1
Silage harvesting combines . .	—	26.5	9.3
Mechanical seeders	111.0	180.2	107.1
Mechanical cultivators	90.6	143.6	93.6
Tractor trailers	—	18.5	85.7
Motor trucks	67.2	115.0	128.6

Source: *Ekonomika selskogo khozyaistva*, No. 6, 1959, pp. 11, 14 and 15.

[a] Production of all-purpose wheeled tractors.

It is hoped to improve utilization of the machinery stock, for which there is apparently ample scope, particularly after the planned fourfold increase in electricity supplies has been achieved. Milking, for example, is still only 5 per cent mechanized, although full utilization of the 30,000 mechanical milking installations — often idle for lack of electric power or because of bad management — would permit a 20 per cent mechanization,[107] and shortages of spare parts and of tyres for tractors are a common subject of complaint. During the discussion at the December 1959 Plenum of the Central Committee of the Communist Party many leading officials suggested that supplies of agricultural machinery were still not coming forward at a rate adequate for the agricultural output targets of the plan, and that lack of maintenance and of spare parts seriously reduced the usefulness of the stock available.[108]

The Agricultural Output Targets in the Soviet Union

The Soviet Seven-year Plan states as one of its objectives " to meet the requirements of the population in the most important foodstuffs and greatly to increase agricultural raw-material resources so as to provide the population with an abundance of a wide assortment of high-grade foods and meet all other requirements of the state in agricultural produce ". It seems improbable that Soviet policy really involves complete autarky in this sector; but production plans for many products suggest an intention to hold down — or even to reduce — the present generally low dependence on imports.

	Production 1958	*Planned increase in supplies 1958 to 1965 from :*		*1958 imports into the Soviet Union*
		Production	*Synthetic substitutes*	
Cotton, ginned (thousand tons) . .	1 467	430-580	117	142
Wool, clean	192	140	130	55
Vegetable oil	1 225 [a]	750 [a]	400	73
Oil-seeds	5 150	ca. 350	..	552
Cattle hides (millions).	..	..	2.5	2.4
Pig, sheep and goat skins	..	..	4.0	20.2

Sources : Mr. Khrushchev, reported in *Pravda*, 10 May 1958 and 20 February 1959; *Vneshnyaya torgovlya SSSR za 1958 god.* Synthetic production was quoted in terms of natural raw material replaced; the conversion factors used for this and natural production were 0.33 for unginned cotton, 0.6 for greasy wool and a clip of 2.7 kg. per sheep (as in 1958) was assumed.

[a] Industrial production from domestic raw material (oil-seeds).

The latest pledges on increases in production of tea during the plan period provide for a rise in output from 33,000 tons in 1958 to 52,000 tons, reducing the margin between domestic output and stated requirements to 8,000-13,000 tons in 1965 (imports in 1958 were 25,000 tons);[109] and Mr. Khrushchev has suggested starting soya-bean cultivation in the far eastern part of the country.[110] At present (1958) half a million tons a year of soya beans are imported, mainly from China. However, imports of some products (such as coffee) can certainly be expected to rise.

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[106] See Chapter IV, p. 15.

[107] *Ekonomika selskogo khozyaistva*, No. 6, 1959, p. 21.

[108] For example: (i) " Even for the next year the Ukraine has been allocated only 70 per cent of its requirements for spare parts for tractors and automobiles.... In the last year the Republic received 38,500 tractors (15 HP), this year 26,500 or less than half the requirements and in 1960 it will receive about the same number " (N. Podgorny, First Secretary of the Ukrainian Communist Party, *Pravda*, 23 December 1959); (ii) " 18,000 tractors (in Kazakhstan) were not used for spring sowings because they were not repaired, and at harvesting 32,000 combines, 21,000 pick-ups and 11,000 mowers stood idle " (Mr. Khrushchev, *ibid.*, 29 December 1959).

[109] Production of green leaf was converted at a coefficient of 0.24. (For all quoted data see *Plenum Tsentralnogo Komiteta Kommunistitcheskoi Partii Sovetskogo Soyuza*, 15-19 December 1958, p. 538; *Vneshnyaya torgovlya SSSR za 1958 god ; Narodnoe khozyaistvo SSSR v 1958 godu ;* and *Pravda*, 25 December 1959, p. 5).

The planned increase in gross farm output of 70 per cent between 1958 (a year of record harvests) and 1965 — compared with 56 per cent in the eight years from 1950 to 1958 — is expected to be achieved as a result of large increases in productivity per hectare and per animal, and with a fall both in labour inputs (by some 10 per cent) and in the recent rate of input of machinery (see above). Gross output per man in collective farms (which furnished nearly 60 per cent of all produce in 1958) is to double under the plan, and productivity in state farms to rise by 55-60 per cent. The comparable figures for the period 1950 to 1958 are 72 per cent and 68 per cent respectively; and the widening of the gap during the plan period reflects *inter alia* the increasing emphasis now given to problems of labour productivity in collective farms.[111]

A rough calculation can be made of the approximate relation of total gross output to final output net of fodder fed to animals — the latter being a more precise indicator of the growth of production of foodstuffs and agricultural raw materials.

	Index numbers		
	1958 (1953=100)	*Sixth Five-year Plan 1960* (1955=100)	*1965 Plan maxima* (1958=100)
Gross crop production. . .	154	159 *	159 *
Gross animal production. .	143	187 *	187 *
Total gross output	149	170	170
Total net of fodder [a] . . .	151	165 *	165 *

NOTE. — For methods of calculation see sources for Table 1 in Appendix B.

[a] Assuming a constant ratio (52 per cent) of fodder to animal production.

On this basis the rate of growth under the plan is naturally reduced, since output of animal products (and thus the double-counting of fodder) is to rise considerably faster than crop production; and the increment over the seven years from 1958 will be practically the same as that predicted over five years (but starting from the poor harvests of 1955) under the superseded Sixth Five-year Plan. The possible difference between good and moderate years for crop production is demonstrated by the figures for 1958 and 1959 in Chapter II, section 1.

The plan targets for individual products are shown in Table 23, but the possibility of raising one target — for meat to 20-21 million tons — was mooted at the December Plenum of the Party Central Committee. It was suggested that per capita production in the United States might then be overtaken by 1965 not only for milk and butter but for meat also.[112]

TABLE 23

Long-term plan targets for Soviet output of agricultural products

Millions of tons, except where otherwise indicated, and index numbers

	Average 1954-1958	1959 [a]	1965 Plan	1965 Plan Index, 1958 = 100
Grain	113.2	124.8	164-180	116-128
Sugar-beet (for sugar) .	35.5	43.9	76-84	140-155
Potatoes	83.4	86.5 [b]	147	170
Other vegetables	14.0	14.9 [b]	31	208
Grapes	1.34	1.72 [b]	ca. 7	400 [c]
Other fruit	2.84	3.51 [b]	7 [c]	200 [c]
Meat (slaughter weight) [d]	6.85	8.6	16 [c]	208 [c]
Milk	48.77	62	100-105	170-180
Eggs (billions)	20.10	24.8	37	160
Oil-seeds	3.86	5.15 [b]	ca. 5.5	110
Cotton (unginned) [e] . .	4.2	4.7	5.7-6.1	130-140
Flax	0.40	0.44 [b]	0.58	131
Wool (greasy)	0.27	0.35	ca. 0.55	170

Sources: *Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 71 and 75; *Sadi ogorod*, No. 3, 1959; and plan fulfilment report for 1959.

[a] Preliminary. [b] 1958. [c] Minimum.

[d] Including lard and offal. [e] State procurements.

The Agricultural Output Targets in Eastern Europe

Only three eastern European countries — Czechoslovakia, Hungary and Poland — have published quantitative targets for gross agricultural output under the long-term plans, in each case showing planned rates of growth of about 4 per cent a year (see Table 1). The east German plan contains only specific product-targets, but these clearly imply increases in total output at least comparable with those planned elsewhere.

All four countries, as has been noted, count upon considerable gains in labour productivity, though to a lesser extent in Poland than in the others; and all the plans presuppose large increases in yields per hectare and per animal. The projected increases in crop production are illustrated by the figures in Table 24, and those for output of animal products in Table 25. The pattern of output is planned everywhere to change in the direction of a relative expansion of meat supplies — and related fodder inputs — in response to the universally high elasticity of demand for meat and other animal products in these countries.

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[110] *Pravda*, 29 December 1959.

[111] See Mr. Khrushchev's and other statements at the December 1959 Plenum (*Pravda*, 23-29 December 1959) and, for indications of the differences in productivity between state and collective farms, the SURVEY for 1958, Chapter I, Table 9.

[112] If theses plan are realized, per capita Soviet production of milk in 1965 will be 458 kg. and of meat (including lard and offal) 88-92 kg. United States per capita production (recomputed by the Central Statistical Office of the USSR to conform with its own output definition) of milk in 1958 was 326 kg and of meat 94 kg.

TABLE 24

Production and yields of major crops in four eastern European countries, 1954-1958 and 1965 Plan

Annual output in thousands of tons, and yields (in italics) in quintals per hectare

Country and product	1954-1958 average	1958	1965 Plan	1965 Plan Index 1954-1958=100
Czechoslovakia				
Wheat	*19.2*	*18.3*	*27.0*	*141*
Rye	*18.4*	*19.0*	*25.0*	*136*
Barley	*19.4*	*17.9*	*26.5*	*137*
Sugar-beet	*270.1*	*299.1*	*324.6*	*120*
Potatoes	*132.1*	*109.1*	*180.0*	*136*
Hops	*6.8*	*8.9*	*10.0*	*147*
Rape	*12.0*	*12.4*	*17.0*	*142*
Hay	*33.0*	*34.8*	*46.0*	*139*
Eastern Germany				
Grains	*23.7*	*25.2*	*30.5*	*129*
Sugar-beet	*282.3*	*312.7*	*385.0*	*136*
Oil-seeds	*11.8*	*9.3*	*18.5*	*157*
Potatoes	*164.2*	*149.5*	*245.0*	*149*
Green fodder	*58.3* [a]	*61.9*	*84.0*	*144* [b]
Maize for silage	*329.6* [a]	*354.5*	*660.0*	*200* [b]
Hay	*43.5* [a]	*46.2*	*60.5*	*139* [b]
Hungary				
Bread grains	2 290	1 860	2 600	114
	13.0	*11.8*	*18.8*	*145*
Maize	2 710	2 830	4 400 [c]	*162* [c]
	21.6	*21.7*	*29.2*	*135*
Sugar-beet	2 010	2 070	3 500	174
	191	*191*	*243*	*127*
Sunflower seeds	143	100	120	84
	11.1	*11.8*	*13.0*	*117*
Potatoes	2 370	2 600	..	..
	100.5	*108.3*	*129*	*128*
Grapes	543	890	810	149
	28.7	*49.9*	*40-42*	*139-146*
Poland				
Four grains	12 558	13 530	16 100	128
	14.1	*14.8*	*17.5*	*124*
Sugar-beet	7 342	8 427	11 000	150
	201	*235*	*250*	*124*
Oils-seeds	..	91	192	..
	..	..	..	..
Potatoes	34 128	34 800	44 000	125
	126	*126*	*160*	*127*

Sources : Plans; statistical yearbooks and bulletins; *Zemědělská Ekonomika*, No. 1, 1960; *Mezögazdasági statisztikai Zsebkönyv*, 1959; and *Társadalmi Szemle*, No. 10, 1959.

[a] 1956-1958. [b] 1956-1958=100. [c] Based on separate statements of area and of yield, and it is not clear whether or not area includes maize for silage.

The east German plans appear to assume vast technical progress in agriculture, in view of labour shortage. Livestock numbers are to rise steeply (see Table 26) as are yields of animal products per hectare; and it is hoped to meet — in part at least — the implied rise in fodder needs through large increases in yields of fodder crops. The Czechoslovak plans look less optimistic in some respects, yet contrast strikingly with the virtual stagnation of output in that country for several years past.

In Hungary the plan reproduces the common pattern of rapid expansion of output and yields of animal products and fodder crops, relying less on raising livestock numbers than on improved breeding and feeding (permitting, *inter alia*, earlier slaughterings.[113] The bread grain area is to be reduced by one-fifth below that of 1954-1958 and that under maize increased in the same proportion. The area under sugar-beet is also to rise by about one-third. For all the main crops, larger fertilizer supplies, irrigation and improved seeds are expected — as elsewhere — greatly to raise yields; and in Hungary fruit and vine production is also to be energetically promoted, partly for export. Yields of vineyards are expected to be 50 per cent greater in 1965 than in 1954-1958 (partly as a result of replanting of vine land at present wasted) and total production of other fruit to rise by around 40 per cent of the 1955-1958 average level.

Agricultural production in Poland is planned to cover home demand for food with a margin for net exports of about $80 million in 1965,[114] and no great changes in the structure of crop production are planned. The natural conditions in Poland do not permit substantial cuts in the area under grain, particularly rye, which alone represented 34 per cent of the whole sown area in 1958. Nevertheless, there will be some shift towards the cultivation of industrial crops, such as sugar-beet and oleaginous plants. The main stress, however, is put on intensification of fodder production — as a basis for expansion of output of animal products. It is hoped that the " agricultural circles " will be an important factor not only in mechanization of agriculture, but also in technical progress generally.

The main elements in the Albanian plan for 1965 so far published relate to agricultural developments. There is a special emphasis on fruit growing, largely for export to other countries of the region, implying increases of 120 per cent in the area under citrus, 40 per

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[113] The Central Planning Board assumes the following coefficients of fodder consumption per litre in relation to milk yield (see *Közgazdasági Szemle*, No. 10, 1959, p. 1067):

Annual milk yield in litres	*Starch consumption in kilogrammes per litre*	*Value of fodder consumption in forints per litre*
1 500	0.95	2.32
3 000	0.59	1.48
4 000	0.51	1.28

The argument against excessive numerical increase of livestock to the detriment of yields was discussed in the *Bulletin*, Vol. 8, No. 3, pp. 28-29.

[114] The structure of these exports will differ from that of the recent past. The share of meat, butter, sugar and eggs will diminish and the share of processed food increase. There will be also an increase in exports of barley, potatoes and potato products.

TABLE 25

Production and yields of animal products in four eastern European countries

Total quantities, and yields per animal or per hectare

	Unit	1954-1958 average	1958	1965 Plan	1965 Plan Index, 1954-1958 =100
Czechoslovakia					
Yields per animal					
Meat—beef	Kg. live weight	381	395	416	109
pig-meat		116	117	103	89
Milk	Litre	1 663	1 759	2 350	141
Eggs	Number	99	103	126	127
Eastern Germany					
Production [a]					
Meat	Thousand tons live weight	891	959	1 340	150
Poultry		8.4 [b]	..	54.7	650 [c]
Milk (3.5 per cent fat content)	Thousand tons	3 528	4 240	7 640	217
Eggs	Million	1 250	1 669	2 942	235
Yields per ha of agricultural land [a]					
Meat—beef and mutton	Kg. live weight	37.6	41.4	72.7	193
pig-meat		100.0	107.4	135.5	136
Poultry		..	1.3	8.5	..
Milk (3.5 per cent fat content)	Kilogramme	540.5	657.6	1 187	220
Eggs	Number	193.2	258.8	457	237
Hungary					
Production					
Meat—beef and veal	Thous. t. slaughter weight	178	206 *	263	147-148
pig-meat		535	645	744	138-140
Poultry		145	155	225	154-156
Milk	Million litres	1 600	1 890	2 700	168-170
Eggs	Million	1 440	1 720	2 320	121-126
Wool	Tons	6 350	7 320	10 000 *	155-160
Yields per head of stock [d]					
Meat—beef and veal	Kg.	86	106	113	131
pig-meat		77	94	106	139
Poultry		6.4	6.1	8.6	134
Milk	Litre	1 808	2 105	2 700	149
Wool	Kg.	3.6	3.8	4.3 *	120 *
Poland					
Production					
Meat	Thousand tons	1 884	2 230	3 000	159
of which : pig-meat		1 330	1 605	2 200	165
Milk	Million litres	10 457 [e]	11 300	15 400	147
Eggs	Million	5 325 [e]	4 550	5 900	136
Wool	Thousand tons	9.5	9.3	11.0	116
Yields per animal					
Milk	Litre	1 840	1 905	2 260	123

Sources: Plans; statistical yearbooks and bulletins; *A mezögazdaság eredményei 1957-ben* and *idem, 1958*; *Társadalmi Szemle*, No. 10, 1959; and *Közgazdasági Szemle*, No. 10, 1959.

[a] State procurements only.

[b] 1956-1958.

[c] 1956-1958=100.

[d] Yields represent annual production per head of total relevant livestock at the beginning of the year, i.e. they reflect changes in rates of slaughtering as well as in weights of slaughtered animals.

[e] 1955-1958 average.

cent for olives, 33 per cent for vines and 250 per cent for other fruit. Meat and milk output are also expected to rise rapidly — by 232 per cent and 240 per cent respectively over the 1957 level. The latter increase will result partly from higher yields, and partly from increased cattle numbers and the replacement of draught animals by milch stock.

Agricultural plans were one topic of discussion at the meeting of the Council for Mutual Economic Assistance held in Sofia in December, and certain 1965 output targets for the member countries as a group were then announced. These comprised increases over the 1958 level of 70 per cent for both wool and fruit, 110 per cent for grapes and 90 per cent for vegetables

TABLE 26

Livestock numbers, 1954-1958 and 1965 Plan

	1954-1958 average	1958 [a]	1965 Plan	1965 Plan Index, 1954-1958=100
Albania		*Thousands*		
Cattle	414	423	500	121
of which: Cows	116	129	..	..
Pigs	89	109	..	..
of which: Sows	20	22	50	250
Sheep	1 655	1 662	2 070	125
Goats	1 004	1 095	1 500	149
Poultry	1 211	1 430	4 500	372
Czechoslovakia				
Cattle	4 111	4 183	4 800	117
of which: Cows	2 079	2 080	2 300	111
Pigs	5 229	5 283	5 510	105
Sheep	936	817	600	64
Hungary				
Cattle	2 060	1 940	2 310	112
of which: Cows	980	970	1 110	113
Pigs	6 990	6 860	6 990	100
Sheep	1 910	2 050	2 500 [b]	130 [b]
Poultry	22 800	25 500 *	26 300 *	115-116
Poland				
Cattle	8 085	8 210	10 500-11 000	130-136
of which: Cows	5 621	5 931	6 600- 7 000	117-125
Pigs	11 304	11 959	16 000-16 500	142-146
Sheep	4 112	3 882	4 100	100
Soviet Union				
Cattle	62 903	70 842	109 000	173
of which: Cows	29 551	33 298	49 000	166
Pigs	39 757	48 680	64 000	161
Sheep	112 126	129 869	189 000	169
Eastern Germany	*Number per 100 hectares of agricultural land*			
Cattle	58.7	60.3	78.0	133
of which: Cows	32.3	32.8	40.6	126
Pigs	120.0	116.6	135.4	113
Sheep	31.4	34.8	40.3	128
Hens	311.2	356.5	495.0	159

Sources: Plans; statistical yearbooks and bulletins; *Zeri i Popullit*, 5 November 1958; *Mezögazdasági statisztikai zsebkönyv*, 1959; *Társadalmi Szemle*, No. 10, 1959; *Közgazdasági Szemle*, No. 10, 1959; *Narodnoe khozyaistvo SSSR v 1958 godu*; and *Tekhnika v selskom khozyaistve*, No. 12, 1959.

[a] Data for end-year in Czechoslovakia and Soviet Union; 3 June in eastern Germany; 1 March in Hungary except for pigs for which 15 October of the preceding year; and 30 June in Poland. The date of the Albanian count is not stated.

[b] It is not entirely clear whether a 30 per cent or a 45 per cent rise is intended.

(presumably excluding potatoes). The figures for the last three products can be regarded as virtually representing the increases in consumption foreseen in the area — from standards which have so far been very low.[115] According to the communiqué on the Sofia meeting,[116] Albania, Bulgaria, Hungary and Rumania all foresee considerable exports of these products to other member countries of CMEA; and Bulgarian exports of fresh and canned fruit and vegetables to such countries will double between 1958 and 1965. This is, of course, very strikingly less than the rise in exports to other CMEA countries so far assumed in Bulgarian plans.[117] A meeting of delegates of Communist and Workers' Parties of CMEA countries, held in Moscow on 2 and 3 February 1960 and devoted to agricultural questions, was reported to have taken plans for product specialization a stage further and to have arranged a corresponding division of output of agricultural machinery and chemical fertilizer, etc.[117a]

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[115] See the SURVEY for 1958, Chapter IV, pp. 10-11.

[116] *Pravda*, 17 December 1959.

[117] **Bulgarian exports** *(Thousand tons)*

	1958	*1959 Plan*
Tomatoes	104	210
Canned vegetables	20	50
Grapes	96	150
Apples	19	30
Wine	19	66
Tomato purée and fruit pulp	56	100

Sources : *Vneshna Torgovia*, No. 3, 1959, pp. 4 and 5; and statistical yearbook.

[117a] *Selskoe khozyaistvo*, 4 February 1960.

5. The Plans for External Trade

The Growth of Total Trade

Viewed against the record of the recent past, all the foreign trade plans so far published appear rather cautious. For Czechoslovakia, eastern Germany, Hungary and Poland, 1957 was a year in which imports suddenly rose, both in absolute volume and in relation to national product, to levels not previously registered during the 1950s. These increases in Hungary and Poland were partly a response to the " crisis " conditions of late 1956 and early 1957; but, although the 1957 rise was nowhere repeated in 1958, imports remained relatively high in that year and there has been a new upsurge in all four countries in 1959.[118] In the three eastern European countries other than Poland the new plans provide for the growth of imports over the whole period 1959-1965 to keep pace, more or less, with the rise in national product, and the Polish plan shows a fall in the " import content " of overall output. The plans thus imply a considerable slackening of recent rates of import expansion.

It is clear, from a comparison of planned rates of increase in exports and imports, that Czechoslovakia, eastern Germany and Poland are assuming that a rising share of export proceeds will be absorbed by worsening terms of trade or current balance of invisible transactions, external lending, debt repayment or accumulation of foreign exchange reserves.[119] This is particularly marked in Poland, where the gap between planned rates of growth of exports and imports is largest and where fears of worsening market conditions for some major exports (coal and foodstuffs) have contributed to the decision to draw up the 1961-1965 plan on the basis of virtually minimum imports. For all these countries and Hungary, it is clear that trade plans may be revised upwards should market prospects and export availabilities prove better than expected.

In all the countries under review, the foreign trade plans have so far been stated — not surprisingly — in less detail and with less precision than have those for investment and output; and data from the Soviet Union are particularly sparse. The only statement on foreign trade in the Soviet plan directives is that turnover with other socialist countries should rise " more than 1½ times by 1965 as compared with 1958 "; and this may well have been already superseded in view of the hope expressed by the Minister for Foreign Trade that the total volume of trade might double during the plan period.[120] Moreover, trade turnover rose, in fact, by nearly one-fifth between 1958 and 1959 and is now planned at 125 per cent of the 1958 level in 1960. A few references to trade plans in individual sectors have also been published but, in general, the main indications available of the likely future pattern of Soviet foreign trade are those given by the plans of eastern European trading partners. It is plain that, for these countries, the Soviet Union will remain a major supplier of fuels and raw materials and a major market for manufactured products; but in its total exports — including a rising share to overseas economically underdeveloped countries — the share of machinery and equipment is expected to rise. Between 1958 and the 1960 Plan the increase in this component is already from 18½ per cent to 21 per cent.

The Regional Distribution

According to the communiqué issued after the meeting of the Council for Mutual Economic Assistance held in Tirana in May 1959, the plans of the member countries provide for a 70 per cent expansion of their mutual trade between 1958 and 1965. This represents a rate of growth certainly less than has been registered during the 1950s, and, in view of 1959 experience and the present plans for 1960, it may well now understate the real expectations.[121] As can be seen from the figures in Table 27, the four eastern European countries under review all appear to expect a rise in trade with other countries of the eastern trade area of about this magnitude or, in Hungary, considerably greater. The share of ' eastern ' trade in the total is everywhere expected to increase, reflecting *inter alia* the uncertainty felt about ' western ' market prospects.

Only Czechoslovakia has as yet published more than a simple east-west breakdown of planned 1965 trade. There, trade with the Soviet Union is expected to be more than doubled between 1958 and 1965, implying a slight fall in the share of other ' eastern ' trading countries in the total, and the share of the less industrialized ' western ' countries is expected slightly to increase within a falling share for this group as a whole. In other countries of the area also, there are hopes of rising trade with the less developed countries.

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[118] See Chapter II, section 3, and the *Bulletin*, Vol. 11, No. 1, Appendix Table VIII. It should be noted that some of the trade plans quoted in the related article in that *Bulletin* have now been revised by the countries concerned, and the revised data are given below.

[119] For Hungary plan data are not available for total imports and total exports separately.

[120] *Pravda*, 18 February 1959.

[121] However, according to *Rocznik polityczny i gospodarczy 1959*, p. 1023, Warsaw 1960 (submitted for printing in December 1959) the expectation is still of a rise in mutual trade of " over 60 per cent ".

TABLE 27

Area distribution of the external trade of four countries, 1958 and 1965 Plans

Values in billions of roubles at 1958 prices, index numbers and percentage shares

	Total turnover			
	1958 Value	1965 Index 1958 = 100	1958 Percentage shares	1965 Percentage shares
Czechoslovakia				
Total	11.48	174	100	100
of which :				
Soviet Union	3.80	211	33	40
Other eastern trade area [a]	4.29	163	38	35
Western industrialized countries	2.08	< 120	18	< 12½
Other western countries	1.31	> 191	11	> 12½
Eastern Germany				
Total	14.28	175	100	100
of which :				
Eastern trade area	10.57	180	74	76
Other (including intra-German trade)	3.71	162	26	24
Hungary [b]				
Total	5.23	155 *	100	100
of which :				
Eastern trade area	3.53	..	68	75 [c]
Other	1.70	..	32	25 [c]
Poland				
Total	9.14	146	100	100
of which :				
Eastern trade area	5.30	ca. 165 *	58	ca. 65 *
Other	3.84	ca. 120 *	42	ca. 35 *

Sources and methods : See Appendix B.

NOTE. — As in earlier ECE publications, " eastern trade area " includes all member countries of the CMEA, mainland China, Mongolia, North Korea and North Viet-Nam. Trade is valued f.o.b. frontier of supplying country except in Hungary (see *b* below).

[a] Including Yugoslavia.

[b] Imports c.i.f., exports, f.o.b.

[c] 1961-1965 distribution as planned in January 1959.

In eastern Germany the new trade agreement with the Soviet Union concluded in November 1959 seems to imply a rate of growth of the mutual trade of the two countries which is rather surprisingly low in the light of qualitative statements on the vast expansion expected. Reciprocal deliveries of 6.2 billion roubles in 1958 are to rise to 7.5 billion in 1960 and a total of 42.5 billion over the five years 1961-1965,[122] which could hardly bring the 1965 value much above 10 billion or some 160 per cent of the 1958 level. Additional trade is no doubt expected outside the agreement; and it is possible that it will amount to more in 1965 than the 12½ per cent margin recorded in 1959.

Hungary plans to sell 90 per cent of its engineering exports on the ' eastern ' market, and to obtain 70 per cent of its imported fuel and raw materials from this area: 95 per cent of imported iron ore will come, as hitherto, from the Soviet Union; coking coal from Czechoslovakia, Poland and the Soviet Union, and all imported caustic soda and potash fertilizers from ' eastern ' countries, together with 70 per cent of sawn softwood and 80 per cent of cotton.[123] In the framework of an agreement with Czechoslovakia, Hungary is to deliver 800,000 tons of steel products to that country and to receive 1,100,000 tons in exchange.

In Poland, as in Hungary, the plans for trade with other eastern European countries in 1965 are now being translated into bilateral agreements, providing in each case for a significant expansion of mutual trade. The agreement between Czechoslovakia and Poland, for example, provides for a 17 per cent rise in trade turnover from 1959 to 1960, to be followed by a 78 per cent rise from 1960 to 1965. This planned doubling of the volume of trade between 1959 and 1965 contrasts strikingly with the virtual stagnation of trade between the two countries from 1950 to 1958.[123a]

The Commodity Pattern

The change in the regional distribution of Polish trade noted above is linked with the expected change in its commodity distribution indicated in Table 28, in that unfavourable market conditions (for foodstuffs and coal) are expected to limit Poland's possible export earnings in ' western ' markets, where these two groups of commodities at present account for about half of total sales. The export surplus of hard coal is not expected to increase after 1960; and the market for those food exports, such as pig meat, of which supplies could readily be increased is judged " rather limited ", though total exports of foodstuffs are nevertheless expected to rise by 60 per cent between 1958 and 1965 and to double over the fifteen years to 1975. The Polish planners stress that for the whole period of the 1961-1975 " perspective " plan " it is the balance of payments which is the true bottleneck of the economic development of Poland ". Given the expected stabilization of coal exports and rising needs for imports of other fuels — particularly oil — and raw materials, it is planned to expand production of machinery and equipment so as to reduce imports to only 8 per cent of total domestic needs by 1975 (against 19 per cent in 1960) while this will also be the most rapidly expanding major group of exports throughout the period. The chemicals sector is also expected to contribute a rapid growth of exports, as well as " through a remarkable rise in the output of

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[122] *Neues Deutschland*, 22 November 1959.

[123] *Népszabadság*, 14 November 1959. For 75 per cent of planned ' eastern ' trade, protocols had already been signed by this date.

[123a] See the *Bulletin*, Vol. 11, No. 1, pp. 72-73.

TABLE 28

Commodity distribution of the external trade of four countries, 1958 and 1965 plans

Values in millions of roubles at 1958 prices; index numbers and percentage shares

	Imports				Exports			
	1958 Value	1965 Index 1958 = 100	1958 Percentage shares	1965 Percentage shares	1958 Value	1965 Index 1958 = 100	1958 Percentage shares	1965 Percentage shares
Czechoslovakia								
Total trade	5 429	170	100	100	6 053	179	100	100
of which:								
Raw materials and fuels	2 970	160	55	51	..	..	..	..
Engineering products	..	..	..	..	2 621	228	43	55
Trade with eastern trade area	*3 829*	..	*100*	*100*	*4 260*	..	*100*	*100*
of which:								
Raw materials and fuels	*1 892*	..	*49*	*50*	*1 278*	..	*30*	*20*
Engineering products	*846*	..	*22*	*33*	*2 122*	..	*50*	*63*
Foodstuffs	*942*	..	*25*	*16*	*149*	..	*3*	*2*
Manufactured consumers' goods	*149*	..	*4*	*1*	*711*	..	*17*	*15*
Eastern Germany								
Total	6 720	163	100	100	7 559	186	100	100
of which:								
Engineering products	..	..	..	..	4 100	195	54	57
Chemicals	..	..	..	..	1 800	200	24	26
Light industrial goods	..	..	..	..	..	194	..	..
Hungary [a]								
Total	2 281	155 *	100	100	2 594	155 *	100	100
of which:								
Raw materials, semi-manufactures and fuels	1 631	138	71	64	566	146	22	20½
Machinery and equipment	422	250	19	30	983	188	38	46
Foodstuffs	121	28 *	5	1 *	563	143 *	22	20 *
Manufactured consumers' goods	107	180	5	5	482	114 *	18	13½ *
Poland [b]								
Total	4 728	136	100	100	4 100	159	100	100
of which:								
Raw materials, semi-manufactures and fuels	2 489	141	52	55	2 020	120	49	38
of which: Fuels	304	179	6	8	1 172	103	29	19
Machinery and equipment	1 310	140	28	28	1 137	220	28	39
Foodstuffs	542	145	12	12	730	162	18	18
Manufactured consumers' goods	387	87	8	5	213	141	5	5

Sources and methods: See Appendix B.

NOTE. — Basis of valuation: see note to Table 27.

[a] Valued at point of change of ownership, excluding re-exports and barter trade.

[b] At 1959 prices.

artificial and synthetic fibre, synthetic rubber and plastics . . . to cut the imports of cotton, wool, natural rubber, timber and non-ferrous metals ".[124] However, between 1958 and 1965 relatively little change is expected in the distribution of imports among the major groups of products shown in Table 28.

The other three countries shown in Table 28 expect an increasing concentration of exports on the machinery and equipment category, though nowhere is the planned rise so steep as in Poland; and Czechoslovakia and Hungary, at least, expect the share of these goods in total imports also to rise. An increasing direction of such exports towards other countries of the area — especially the Soviet Union — is expected in Czechoslovakia and, it seems, in eastern Germany. In addition to engineering products, eastern Germany will concentrate particularly on exports of chemicals and light industrial goods; and Hungary, like Poland, plans virtually to maintain the share of exports of foodstuffs in the total. Neither in Hungary nor in Poland are imports of foodstuffs and consumers' manufactures taken together to rise as fast as other imports; and it is clear that Czechoslovak imports of consumers' manufactures from other countries of the eastern trade area are even expected to fall in absolute volume.

In eastern Germany, as in Poland, it is emphasized that fulfilment of the trade plans is vital for the success of the development plan as a whole; and imports in 1965 of some products are specified in detail. The increases in these specified imports are noticeably higher (with the exception of coal and cotton) than the planned overall rise of 63 per cent:

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[124] All quotations in this paragraph are from M. Kalecki, " The 1961-1975 Long-run Economic Plan ", *Polish Perspectives*, No. 3 (11), Warsaw, March 1959.

Imports into eastern Germany

	1958 Quantity [a]	*1965 Plan Index, (1958 = 100)*
Hard coal	7 813	113
Crude oil	1 127	470
Pig iron	557	258
Rolled products	1 243	182
Copper	19.5	223
Aluminium	31.8	286
Sawnwood	737	210
Roundwood	785	183
Cellulose	43	284
Wool	12.5	275
of which: first quality	3	690
Cotton	88	167
Raw hides (salted weight)	17.2	181
Mediterranean fruits	99	303
Cocoa beans	9.1	385
Coffee beans	15.7	318
Consumers' manufactures	" Will rise "	

Sources: Plan document; *Der Handel,* No. 10, 1959; and *Die Material-Wirtschaft,* No. 5, 1959.

[a] Quantities in thousands of tons except sawn and round wood (thousand cu.m.).

The Role of the Soviet Union

In the trade agreement with eastern Germany mentioned above, the Soviet Union figures as a large supplier during 1960-1965 of fuel (coal, coke and oil) and materials (iron ore, ferrous and non-ferrous metals, steel tubes, cotton, timber and cellulose) together with unspecified quantities of grain, edible oil, butter and meat, a fairly wide range of heavy equipment and 34,000 motor cars. The listed east German counter-deliveries cover 16 billion roubles of engineering products — railway equipment, ships and machine tools (2 billion roubles each in the first two cases and 1½ billion in the third), other equipment to a total value of 3 billion roubles — chemicals to a value of 2 billion roubles and " considerable quantities " of consumers' goods. According to Soviet sources, Soviet deliveries of iron ore to eastern Germany will rise from 417,000 tons in 1957 to 1.6 million tons in 1965,[124a] and of rolled steel and tubes from 652,000 tons to 1.56 million; and deliveries of products now accounting for about one-third of all Soviet exports to Czechoslovakia will increase as follows:

	1958		
	Thousand tons	*Percentage of total*	*1965 Index (1958=100)*
Iron ore	3 700	9.7	273
Synthetic rubber	7.0	0.9	270
Cotton	50.2	8.6	119
Flax fibre	6.5	0.5	123
Machinery	..	10.6	300

Source: Vneshnyaya torgovlya, No. 12, 1959, pp. 14-15.

In return, Czechoslovakia's exports of machinery will be trebled (exports of equipment for the chemicals industry alone rising to ten times the 1958 level) and will then account for 60 per cent of all its exports to the Soviet Union, against 36½ per cent in 1958.

The role of the Soviet Union as a supplier of oil and other fuel to the countries of the area has been mentioned in section 4; and deliveries of oil from that country in 1965 to other CMEA members are expected to be more than trebled between 1958 and 1965, reaching some 15 million tons. Deliveries of iron ore will rise by 120 per cent and of pig iron by 170 per cent (to nearly 25 million tons and 2.2 million tons respectively) and apatite concentrate by 150 per cent to 2.5 million tons. Among the counter-deliveries from east Germany, Czechoslovakia and Poland the most important will be chemical equipment, sugar-refining machinery, cement-making plant, automation equipment, ships and machine tools. Soviet imports of machinery from the CMEA area (now providing about 80 per cent of all such imports) will be 2.3 times greater in 1965 than in 1957, and Soviet exports of machinery to the same area (which takes about one-third of all such exports at the present time) will rise to 2.2 times the 1958 level.[125]

Indications of Trading Policies

There is little to indicate that the attention increasingly paid to considerations of cost advantage in the current trading decisions of eastern European countries has had more than a very general, and marginal, impact on the new trade and production plans. A certain degree of specialization in many fields has been agreed upon within the CMEA, as has been mentioned above; but in most countries considerations of the relative profitability of different levels and patterns of trade seem to have taken second place — when the long-term plans were drawn up — to fears of difficulties in expanding exports at a rate sufficient to pay for more than the essential minimum of imports, or to an apparent simple wish to limit import dependence.

An import-saving emphasis is particularly marked in the basic fuels and raw materials branches, and is reflected in the following figures. Policy in the processing branches seems, however, generally to be rather more export-oriented, and this is reflected in the relations of growth rates for engineering output and for exports and imports of engineering products.

[124a] *Der Aussenhandel,* No. 23, 1959, gives the figure as 2.18 million tons. It may be that the Soviet source quotes the data in terms of ferrous content.

[125] Sources for data in this and the preceding paragraph: *Vneshnyaya torgovlya,* No. 12, 1959, pp. 14-15; *Vneshnyaya torgovlya SSSR za 1958 godu*; N. Sulyanov, *Voprosy ekonomiki,* No. 3, 1959, p. 38; and O. Bogomolov, *Voprosy ekonomiki,* No. 1, 1960, p. 14; and *Mezhdunarodnaya zhizn,* No. 10, 1959, pp. 55-56.

Index numbers 1965 (1958 = 100)

	Czecho-slovakia	*Eastern Germany*	*Hungary*	*Poland*
Gross industrial output	183	188	165-170	182
Imports of fuels, raw materials and semi-manufactures	160	..	138	152
Gross output of engineering industries	226	218	182-186	222
Exports of machinery and equipment	228 [a]	195 [a]	188	220
Imports of machinery and equipment	..	..	250	140

Sources: Tables 15 and 28.

[a] All engineering products.

The background of the Polish plan in this respect has already been noted; and in Hungary and eastern Germany there is also strong emphasis on import saving in some fields (for example the efforts to reduce the metal content of engineering output mentioned above). In Hungary, while — as shown in the above figures — gross output of state industry is expected to rise by 65-70 per cent between 1958 and 1965, imports of fuels and raw materials are to increase by only 38 per cent, partly as a result of savings in inputs but partly as a result of expansion — often at high cost — of domestic output of raw materials.

It may be questioned whether greater efforts could not, in some cases, be more profitably directed to processing larger quantities of imported material for export and seeking larger export markets. However, success in such a course would require the certainty of widening access to markets not only outside the CMEA area but also, given the present degree of regional concentration of trade, within it. An article in the *Economic Bulletin for Europe* [126] has discussed possible measures which could help to bring about some relaxation of the present rigid pattern of bilaterally balanced trade; and which could benefit particularly the smaller countries of the area. However, the suggestions made at various times in the past year — in the Soviet Union and elsewhere — that a convertible rouble or effective multilateral clearing arrangements might soon contribute to such a result do not yet seem to have been followed by more purposive exploration of practical possibilities.

Nevertheless, it seems that the country of the area with the least acute trade and balance-of-payments problem — the Soviet Union — is showing increasing willingness to develop a trade pattern which benefits its trading partners in the area. On the other hand, although rising imports can be expected of some products which are virtually impossible to produce domestically, the possible advantage of increasing imports of foodstuffs or agricultural raw materials is rarely — if ever — publicly discussed. It is even more surprising that responsible authorities in a country like Czechoslovakia, where there is already labour scarcity in agriculture, should continue to insist on the need to raise agricultural output as a condition for raising consumption standards, and should apparently contemplate only a very small growth of food imports, even from the " eastern " trading area. The recent announcement, noted in section 4 above, that Bulgarian exports of fresh fruit and vegetables to other CMEA countries — small as they are in relation to potential demand for these and similar foods — are expected only to double between 1958 and 1965 is one illustration of the scope still remaining for further " liberalization " of intra-area trading policies.

6. THE PLANS FOR CONSUMPTION AND LIVING STANDARDS

The Growth and Pattern of Consumption

Even though, as was shown in sections 1 and 3 above, the share of investment in national expenditure is to increase somewhat under the new long-term plans in all the countries under review, it would be a mistake to conclude that any very radical departure is anywhere intended from the post-1956 policies aiming to accelerate the rise of living standards. Rates of growth of per capita personal (material) consumption are everywhere planned at 4-5 per cent a year (see Table 1 above) and increasing attention is being given to improving the quality and variety of goods available to the consumer; the rate of dwelling construction is everywhere planned to rise above that of 1956-1958, and all the plans mention the pressing need to improve consumers' services — most of which remain outside the conventional definitions of national income and consumption in these countries. The maintained, or restored, priority for development of " producers' goods " over " consumers' goods " output, noted in section 4 above, conceals very high rates of growth of output within the former category of many products which fairly directly benefit the consumer — for example, building materials, fertilizers, synthetic fibres and plastic materials. Equally important is the fact that the longer-term growth of consumption is being supported by larger allocations of investment resources to agriculture and to consumer-goods industries.

The planned patterns of growth of output of consumers' goods reflect trends already apparent in consumers' preferences. The pattern differs from country to country; but everywhere the textiles and clothing branches show rates of growth below the average for all industry (see Table 15 above) while output of durable goods is planned to rise fast. Nevertheless, per capita consumption of ' traditional ' textiles and footwear is expected to increase moderately everywhere to levels which will still vary considerably from

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[126] Vol. 11, No. 1, pp. 72-74.

TABLE 29

Per capita consumption of some textiles and footwear, 1958 and 1965 Plans

Country	Fabrics (in metres)				Leather footwear (pairs)	
	Woollen		Cotton			
	1958	1965 Plan	1958	1965 Plan	1958	1965 Plan
Czechoslovakia	2.8	4.7	31.2[a]	34.6[a]	3.8[b]	4.4[b]
Eastern Germany	2.0[c]	4.5[c]	20.0[c]	33.0[c]	1.2	2.1
Hungary[d]	2.1[c]	2.9[c]	11.3[c]	15.5[c]	1.2	1.8
Poland	2.6	2.9	17.8	21.6	1.2	1.6
Soviet Union	1.5[a]	2.2[a]	28.0[a]	34.3[a d]	1.7[a]	2.2[a]

Sources: Statistical yearbooks and plan documents; *Rudé Právo*, 26 November 1959; *Közgazdasági Szemle*, No. 1, 1960, p. 46.

[a] Per capita production. For production data for all countries see Appendix Table II.

[b] All footwear. The figure for leather footwear alone was 1.52 in 1958.

[c] Square metres.

[d] 1965 figures are the mid-points of the ranges stated in the plan.

country to country even in 1965. Data for the main products are shown in Table 29; and the plans for Czechoslovakia, eastern Germany and the Soviet Union show increases in per capita consumption of ready-made clothing also.[127]

By 1965, the output of a number of durable consumer-goods — in addition to radios, already in large-scale production for some years past — will have entered the mass-production stage in, at least, Czechoslovakia, eastern Germany, Poland and the Soviet Union. The market for radios is probably the nearest to saturation point, and the stocks planned for 1965 in Czechoslovakia and Poland are not markedly different from the 250-300 per thousand inhabitants recently existing in the richer industrialized countries of western Europe.[128] Stocks of the newer durable goods (television sets, refrigerators, washing machines, for example) are at present very small by comparison with the average standards of industrialized western Europe; but by 1965 they should, in general, equal or surpass the recent levels in this area, though nowhere approaching those of the United States (see Table 30 and the data below):

Stocks per thousand inhabitants in 1957

	Industrialized western Europe[a]	*United States*
Washing machines	60	235
Refrigerators	43	265
Radios	250	890
Television sets	46	272
Motor-cars	58	330

Source: National Institute of Economic and Social Research, *Economic Review*, London, November 1959.

[a] OEEC countries excluding Greece, Iceland, Ireland, Portugal, Spain, Turkey.

TABLE 30

Per capita production and changes in per capita stocks of some consumers' durable goods, 1958 and 1965 Plans

Quantities in units

Country and product	Production		Stock	
	1958	1965 Plan	1958[a]	1965 Plan
Soviet Union	*Per thousand inhabitants*		*Per hundred households*	
Washing machines	2.6	11.2	..	27
Refrigerators	1.7	6.3	..	17
Radios	18.8	25.1	..	67
Television sets	4.8	14.5	..	33
Motor-cars	0.6	..	..	..
Motor-cycles and scooters	1.9	3.5	..	..
Czechoslovakia				
Washing machines	23.2	..	27.8	66.7[b]
Refrigerators	5.9	18.6	5.5	33.3[b]
Radios	22.5	22.6	77	91
Television sets	9.9	28.1	5.4	52.6
Motor-cars	3.2	7.7	3.5	10.6
Motor-cycles and scooters	12.1	..	12.2	23.3
Eastern Germany				
Washing machines	2.9	11.6	..	..
Refrigerators	3.1	20.4	2.0	27.4
Television sets	10.4	41.7	6.2	77.0
Motor-cars	2.2	5.9	..	..
Motor-cycles	4.7	6.3	3.5	5.3
Hungary[c]			*Per thousand inhabitants*	
Washing machines	13.0	8.1 *[d]	17.9	72.5
Refrigerators	0.1	4.3 *[d]	1.6	27.2
Radios	45.8	..	198	..
Television sets	3.8	15.2 *[d]	1.6	37.6
Bicycles	20.6	15.9 *[d]	..	..
Poland				
Washing machines	7.8	18.5	8.3	107
Refrigerators	0.8	7.4	0.8	27.7
Radios	27.4	33.9	88.8	239
Television sets	2.0	13.6	0.8	61
Motor-cars	0.4	0.7	2.1	5.6
Motor-cycles and scooters	..	..	12	52
Bicycles	10.8	23.1	55	236

Sources: Appendix Table II; statistical yearbooks and plan documents; *Rudé Právo*, 29 October 1959 and 21 January 1960; *Planovoe khozyaistvo*, No. 12, 1959, p. 23; *Figyelő*, 24 November 1959.

[a] 1957 for Czechoslovakia and Poland.

[b] Per thousand inhabitants: washing machines 200, refrigerators 100.

[c] In addition to the data in the table, increases are expected between 1958 and 1965 of 50 per cent in the stock of bicycles per thousand inhabitants, 250 per cent for motor-cars and rather more for motor-cycles, scooters and power-assisted bicycles.

[d] Per capita supplies assuming increase at equal annual rate so as to give the planned total supplies for 1960-1965.

Although, by 1965, production of motor-cars will be rising fast in Czechoslovakia, eastern Germany, Poland and the Soviet Union, this is one market which is intended to remain small by western European standards at least up to that year.

Production of furniture is also to rise particularly fast in the Soviet Union — from 7.6 billion roubles in

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[127] The increases (very rough indicators since data are given in numbers of garments and only for certain types) are of the order of 25-30 per cent from 1958 to 1965 in Czechoslovakia and eastern Germany and 75 per cent in Poland and the Soviet Union. In Hungary, retail sales of clothing are planned to rise in volume by 57 per cent.

[128] See Table 30 and the SURVEY for 1958, Chapter V, Table 12.

1958 to 18 billion in 1965 — in line with the greatly expanded housing programme; increases of 85 per cent and 40 per cent respectively are planned in Poland and Czechoslovakia, and in Hungary output in the state furniture industry is to be doubled. Nevertheless, the Soviet Union is one country where a shift of the consumption pattern away from textiles and clothing towards durable goods between 1958 and 1965 is apparently not in prospect: on the contrary, the former goods are expected to represent 19.7 per cent of retail supplies in 1965 compared with 18.1 per cent in 1958, but the percentage share of food is expected to fall slightly (from 54.3 to 53.2).[129] This fall is forecast despite the fact that the share of food consumption passing through the retail network is likely to rise, as a result of the intended progressive absorption of private plots and privately-owned livestock into the state and collective farms and changes in systems of remuneration of collective farmers.[130]

A slower rise of consumption of basic foodstuffs than of durable goods is a feature of all the eastern European plans so far published (see Tables 30 and 31), and a falling share of food in total retail trade turnover is common to all the plans (see Table 32). At the same time the diet is everywhere expected to improve in quality, relying more on meat and other animal products and less on cereals and potatoes. As can be seen from the following figures, the 1965 diet in the Soviet Union will be much nearer than at present to the scientifically determined norms, even though foodstuffs of vegetable origin will still take too large a share in relation to those of animal origin; and the targets for meat, butter and milk consumption, though only broadly indicated, are among the key mobilizing slogans of the plan.[131]

Percentage contribution of principal foodstuffs to total calorie consumption in the Soviet Union

	1958	*1965 Plan*	*Rational nutritional level*
Foodstuffs of vegetable origin	*78.1*	*70.3*	*63.2*
Grain products	52.4	39.8	34.9
Potatoes	9.2	5.9	5.8
	61.6	*45.7*	*40.7*
Vegetables and melons	1.4	2.6	2.6
Fruit	1.1	2.0	3.6
Vegetable oil	4.4	6.1	5.3
Sugar	9.6	13.9	11.0
	16.5	*24.6*	*22.5*
Foodstuffs of animal origin	*20.8*	*29.1*	*36.4*
Meat and meat products	7.6	10.1	11.9
Milk and milk products	11.8	17.2	21.4
Eggs	0.7	0.9	2.1
Fish and fish products	0.7	0.9	1.0
Other foodstuffs	*1.1*	*0.6*	*0.4*

Source: R. Nazarov, *Voprosy ekonomiki*, No. 11, 1959, p. 112.

TABLE 31

Consumption of some basic foodstuffs

Kilogrammes per inhabitant per year

	Meat	Milk and milk products [a]	Butter	Sugar	Vegetables
Czechoslovakia					
1949	33.1	196.5	4.8	26.4	75.7
1958	53.9	186.1	5.6	34.9	77.1
1965	65.0	247	..	39.2	83
1965 *Index* [b]	*121*	*133*	..	*112*	*108*
Eastern Germany					
1955	46.3	80.0	9.8	28.0	46.5
1958	50.8	94.7	11.9	30.1	50.5
1965	59.2	141.0	13.5	..	..
1965 *Index* [b]	*117*	*149*	*113*	..	..
Hungary					
1950	34.9 [c]	136		16.3	75.3
1958	43.9 [c]	140		24.8	66.9
1965	52.0 [c]	187		31	..
1965 *Index* [b]	*118*	*134*		*125*	..
Poland					
1950	32.0	293		21.0	..
1958	40.4	360		28.5	77
1965	49.0	420		34.0	100
1965 *Index* [b]	*121*	*117*		*119*	*130*
Soviet Union [d]					
1958	28 [e]	..	3.8	26	71
1965	53 [e]	..	5	41-44	160
1965 *Index* [b]	*189*	*161*	*132*	*163*	*225*

Sources : Plan documents; statistical yearbooks; *Rudé Právo*, 1 December 1959; *Kommunist*, No. 15, 1959, p. 78; *Trybuna Ludu*, 22 March 1959; *Közgazdasági Szemle*, No. 1, 1960, p. 41; *Ar élelmiszeefogyasztás alakulása Magyarországon*, 1957, p. 37; *A nemzeti jövedelem és a lakossig jövedelme 1958-ban*, p. 19.

NOTE. — Since definitions of products vary between countries, the data are not always internationally comparable.

[a] In milk equivalent, excluding butter.

[b] 1958 = 100.

[c] Including poultry and fish.

[d] All figures refer to production.

[e] Slaughter weight converted to retail weight by deducting one-quarter for offal and waste.

Since, as has been pointed out in the preceding section, all the countries under review aim to hold imports of agricultural products at only small percentages of total supplies, the plans for food consumption illustrated in Table 31 are heavily dependent on achievement of the agricultural production targets which — in Czechoslovakia, eastern Germany and the Soviet Union at least — appear to have been set at ambitious heights even when the vagaries of the weather are left out of account (see section 4 above, and Chapter IV, section 1). However, all the plans include provision for some improvements in quality and variety of the diet via imports (partly from Albania, Bulgaria, Hungary and Rumania) of fruit and vegetables and — more

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[129] A. Strukov, *Planovoe khozyaistvo*, No. 12, 1959, p. 21.

[130] See the SURVEY for 1958, Chapter I, pp. 19-20; and the *Bulletin*, Vol. 11, No. 3, pp. 40-41.

[131] Within the falling share of all food in retail trade turnover, that of animal products is to rise from 10 per cent to 13.2 per cent between 1958 and 1965 (Strukov, *loc. cit.*).

TABLE 32

Indicators of growth of personal incomes and retail trade turnover under the long-term plans

Percentage increases over periods indicated

	1960 to 1965 Plan		1958 to 1965 Plan		
	Czechoslovakia	Poland	Eastern Germany	Hungary	Soviet Union
Consumption fund [a]	31	33-35	55	40-45	60-63
Per capita wages and salaries	20 [b]	23-25	60-65 [c]	26-29	40 [b]
Per capita peasants' incomes		23-25	..	32-35	40
Retail trade turnover	30	41	67 [a]	46	62
of which : Food	23	31	..	30	58
Non-food	39	49	..	62 [e]	65

Sources : Plan documents; *Statistický Obzor*, No. 11, 1959; *Társadalmi Szemle*, No. 10, 1959; *Népszabadság*, 2 December 1959; and *Planovoe khozyaistvo*, No. 12, 1959, p. 21.

[a] In Czechoslovakia and Poland, personal consumption only; in eastern Germany, personal and collective consumption; definitions in other countries are not precise.

[b] " Real per capita income " in Czechoslovakia and the Soviet Union, where the concept includes money earnings and other pecuniary awards together with imputed values of state-provided services such as education, health and housing subsidies. In Czechoslovakia, the wage fund of the socialist sector is to increase by 21 per cent, of which 45 per cent is due to increased employment (*Práce a Mzda*, Supplement, 1959, pp. 9-11); in the Soviet Union the average per capita nominal wage is to increase by 26 per cent over the period of the plan.

[c] It is not clear whether this represents the per capita or the total increase planned.

[d] Supply of consumers' goods.

[e] Including increases of 57 per cent for clothing and 65 per cent for other manufactures.

important — of tropical products. In eastern Germany, for example, per capita consumption of cocoa products is expected to be more than doubled and of coffee and tropical fruits to be nearly trebled between 1958 and 1965; and increases in per capita fruit consumption of about 25 per cent are forecast in Poland and Czechoslovakia.

Trends in Personal Incomes

In the light of the per capita consumption figures discussed above, planned trends in personal incomes, summarized in Table 32 appear — except in eastern Germany — rather modest by comparison. This applies particularly to the Soviet Union, where average nominal wages of workers and employees are to increase by 26 per cent over the period of seven years and the real value of money wages by probably not more than 30 per cent.[132] The apparent gap between this figure and the planned 49 per cent rise in per capita retail trade turnover can probably be largely explained by three factors. The progressive monetization of peasants' incomes-in-kind, referred to above, and the fact that building materials and many other supplies for collective farms are distributed by the retail trade network [133] will lead to a higher rate of expansion of trade turnover in the countryside than in the towns. Thirdly, the abolition of income tax " within a very few years ", forecast by Mr. Khrushchev when presenting the Plan Directives, will tend somewhat to raise the ratio of total disposable incomes to wages. There may well, however, remain some " safety margin " between the targets set for output and sales of consumers' goods and the commitments undertaken to raise disposable money incomes.

Among other countries the contrasting trends in planned increases in wages in Czechoslovakia and in eastern Germany are striking. In the former country, the wage fund is to increase by 21 per cent between 1960 and 1965 or by about 2 per cent a year per capita; but in eastern Germany the average annual increase amounts to 7-8 per cent.[134] The plans for retail trade turnover in the two countries tend to confirm the impression that much larger increases in real personal incomes are expected in eastern Germany.

In Hungary, Poland and the Soviet Union, peasants' incomes are to increase by very much the same margin as wages and salaries, though — as already noted — the Soviet plan foresees a monetization of farm incomes-in-kind. Moreover, in contrast with the past — when price decreases played an important role in improvements in peasants' incomes — the new Soviet plan states that improvements will in future depend entirely upon rising output and productivity. A significant narrowing of the wage-spread is also expected in the Soviet Union. The statutory minimum wage is to increase by stages from the present 270-350 roubles,[135] to reach 500-600 roubles monthly at some time be-

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[132] The only important price reductions forecast are in public catering.

[133] Between 1952 and 1958, total sales of consumers' co-operatives in the countryside rose by 98 per cent but sales to collective farms (mainly producers' goods) rose by 150 per cent (*Dengi i kredit*, No. 9, 1959, p. 11).

[134] It is not in fact clear whether the quoted 60-65 per cent increase in wages over the plan period refers to total or to per capita wage payments, nor whether it refers to the whole economy or to the socialist sector only. If the latter, a part of the increase of the wage fund would be attributable to the expected further socialization of the economy.

[135] Established in 1957 (see the SURVEY for 1956, Chapter I, Table 26).

TABLE 33

Dwelling construction and housing stock, 1958 and 1965 Plans

Country	Dwellings			New construction 1959-1965 as percentage of:		Floor space per inhabitant		
	Stock 1958	New construction 1956-1958	New construction 1959-1965	1956-1958 Rate	1958 Stock	1958	1965 [a]	1965 Index (1958 = 100)
	Thousands					Square metres		
Soviet Union	781 [b]	164	650-660 [b]	171	84	7.9 [b]	< 11.5 *	< 145 *
Czechoslovakia	3 920	181	623	148	16	11.28	12.44	110
Eastern Germany	4 550	157 [c]	772 [c]	211	17	12.18	14.70	121
						Rooms per thousand inhabitants		
Hungary	2 662	119	334	120	13	394	415	105
Poland	15 100 [d]	972 [d]	4 030 [d]	178	27	521	589	113

Sources: Statistical yearbooks and plan documents; *Közgazdasági Szemle*, No. 10, 1959, p. 1032.

[a] Except in the Soviet Union, the 1965 figures in this column are gross of demolition, loss and obsolescence; i.e. the available floor space (or number of rooms) has been calculated by adding new construction to the 1958 stock.

[b] Floor space in towns, workers' settlements, state farms, repair-technical stations and timber industry settlements. It is not clear whether the 1958 total stock (781) is fully comparable with other data.

[c] Including conversions and extensions.

[d] Thousands of rooms.

tween 1963 and 1965; and it has been calculated that per capita wages of the " low-paid groups " will go up by 70-80 per cent, as compared with the overall average of 26 per cent. According to preliminary estimates of the Labour Research Institute the " coefficient of differentiation " of the wage distribution [136] will be reduced by one-third by 1965.[137] It is also intended gradually to raise old-age pensions from the present minimum of 300 roubles a month (in towns) to 400 roubles in 1963 and 450-500 roubles in 1966; and correspondingly large increases are planned for rural pensioners, widows and the disabled. In Czechoslovakia, the lower-paid groups as well as large families are to be accorded preferential increases in incomes; and gradual improvements in old-age pensions are foreseen in the east German plan, which provides for a rise in the average pension from DM 134 in 1958 to DM 215 in 1965.

Improvements in Housing and Social Amenities

The planned increases in the consumption of food and manufactures discussed above are to be accompanied everywhere by improvements in housing, trade and communal services, education, health services, and other forms of social welfare; and all the plan documents devote considerable space and attention to such targets.

By far the greatest progress in improving housing standards is foreseen in the Soviet Union. The Directives state that the total floor space available in towns and workers' settlements is to increase by 60 per cent during the plan period, and that close to 7 million houses are to be built in the countryside, mainly, but not exclusively, by collective farmers. The former figure implies a rise in per capita urban housing space not exceeding 45 per cent between 1958 and 1965; and it would also imply that an extraordinarily large part of the new construction is to go into replacement of part of the existing housing stock.[138] Another source [139] quotes the same figures for new construction as are given in the Plan (and in Table 33) but shows this as representing a 63 per cent increase in per capita housing space (which, incidentally, would imply a very low rate of replacement). If this latter interpretation is correct the fulfilment of the plan will bring dwelling space per head in the Soviet Union to the levels of Czechoslovakia and eastern Germany, which alone among the eastern European countries approach the standards reached in the more advanced countries of western Europe.[140] In the four eastern European countries under review, the building plans, though less substantial than that of the Soviet Union, are expected to bring some relief to present overcrowding; but this is obviously more difficult to attain in a country of rapid population growth such as Poland than in eastern Germany, where the population is almost stationary (see Table 33).

In the field of social services, current budgetary expenditure on health, education and social welfare is to increase under the Soviet Seven-year Plan by more than 67 per cent over the period. Thus this element in consumption will rise faster than the 60-63 per cent increase in the total consumption fund and much faster than the real value of cash incomes. In fact, the imputed value of such services and of housing accounts for the difference between the expected rise of about 30 per cent in the real value of money wages and the 40 per cent increase in per capita " real incomes " outside agriculture stated in the Plan (see footnote *b* to Table 32). Government capital spending on social services will be 86 per cent greater during the new plan period than during 1952-1958; and both targets were raised between the publication of the " theses " and the approval of the Directives by the XXI Party Congress.[141] Investment expenditures out of local authorities' budgets in Czechoslovakia are planned to be 70 per cent greater for education and culture, and 100 per cent higher for health and social security during 1961-1965 than in the preceding five years.

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[136] Presumably the coefficient of variation, or a similar measure of dispersion.

[137] I. Pisarev, *Sotsialistichesky trud*, No. 11, 1959, p. 64.

[138] Unless the figure for new construction shown in Table 33 has a wider coverage than that for the 1958 stock, it follows that as much as 28 per cent of the new construction will go into replacement of old buildings.

[139] *Kommunist*, No. 15, 1959, p. 81.

[140] See the SURVEY for 1958, Chapter IV, pp. 16-17, and Chapter V, p. 15.

Advances in medical services include everywhere further improvements in hospital capacity and in the number of physicians. The number of doctors per 10,000 inhabitants is to increase over the years 1958 to 1965 from 8.4 to 11.8 in Poland, and that of doctors and dentists from 16.4 to 19 in Czechoslovakia. In the Soviet Union the total number of doctors is to increase from 362,000 in 1958 to about half a million in 1965. But even more important, in view of the past over-strain of the physical facilities of the — free and otherwise extensive — health services,[142] are the increases planned in hospital accommodation. Eastern Germany, with the smallest prospective rise in population and the largest present facilities, shows the smallest increase; it is followed by Czechoslovakia, where standards are also relatively higher than in the other eastern European countries, and Hungary. The increases will be greatest in Poland and the Soviet Union. The Czechoslovak plan emphasizes specifically the need for preventive medicine and promises intensified efforts towards safeguarding the purity of air, water and soil.

Hospital beds per 10,000 inhabitants

	1950	*1958*	*1965*
Czechoslovakia . .	62	73	81
Eastern Germany .	102	118	120
Hungary	56	70	78
Poland	40	53	63
Soviet Union . . .	55	74	95

Sources: Statistical yearbooks and plan documents; *Zdravookhranenie v SSSR,* p. 39; and *Izvestia,* 20 January 1960.

Plan data relating to education, such as expected enrolments in various types of school, are more difficult to interpret because of the imminent fluctuations in the numbers of young persons in the populations (see section 2 above). However, compulsory schooling is to be extended from 8 to 9 years in Czechoslovakia (by the end of 1961) and from 7 to 8 years in the Soviet Union,[143] and in Poland an effort is to be made to introduce universally the basic seven-grade school. Numbers of university and college students — already relatively high — are to expand considerably everywhere. In the Soviet Union 2.3 million specialists are expected to graduate during the years 1959-1965 against 1.7 million graduations in the preceding seven years, and the number of engineers will increase between the two periods by 90 per cent. In Czechoslovakia there will be 870,000 specialists with secondary or university education in 1965 against 696,000 in 1958; and in Hungary the number of students in secondary schools is to rise from 137,000 in 1958 to 170,000 in 1965.

In general, it seems that services of all kinds will play at least as large a part as in the recent past in the continuing growth of living standards in both the Soviet Union and eastern Europe.

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[141] The plan figure of the total current expenditure in 1965 was raised from 345 billion roubles to 360 billion, and that for capital expenditure during 1959-1965 from 77 billion to " over 80 " billion.

[142] See the SURVEY for 1958, Chapter IV, p. 17.

[143] The number of children in the newly introduced boarding schools is to reach 2.5 million in 1965.

CHAPTER IV

SOME CHARACTERISTICS OF THE SOVIET SEVEN-YEAR PLAN

1. THE GENERAL FEATURES OF THE PLAN [1]

An Historical Perspective

As a benchmark in the economic history of the Soviet Union, the first Seven-year Plan (1959-1965) can be compared with the First Five-year Plan (1928-1932): the formulation of the one and the execution of the other took place in a period of far-reaching alteration in the planning and control of the economy, and the production changes introduced by both represented radical changes of direction. The modifications of the production pattern envisaged in the new plan are more profound than those which had occurred under any of the intervening five-year plans.

The reshaping of economic management, which occurred just before the Seven-year Plan was drawn up, and the refinement of the central planning mechanism, which is still in progress, differ qualitatively from the institution of central direction of industry and finance, the collectivization of agriculture and the nationalization of trade which accompanied the First Five-year Plan, since the present changes do not involve the revolution in productive (property) relations of the earlier. Yet the manifold reorganization of 1956-1959 stands in sharp contrast to the maintenance until 1955 of the system of economic direction established by 1930, and was necessitated by the very attainment of a high stage of industrial development.[2]

The change in the production pattern introduced by the First Five-year Plan was an orientation towards the production of capital goods, and this priority held good through the pre-war years and until the post-war restoration of the economy was completed. Since the inception of the Fifth Five-year Plan, the margin between the rates of growth of producers' goods and consumers' goods has been narrowed. The new Seven-year Plan maintains the slight lead of producers' goods — gross output of heavy industry is to rise by 9.3 per cent annually, while that of light industry and of agriculture is scheduled at 7.3 per cent and 7.8 per cent respectively — but it substantially alters the composition of each group from that which had ruled since the First Five-year Plan.

The Soviet production profile is to alter during the Seven-year Plan in five main respects. First, oil and gas are more rapidly to replace coal in the energy balance. Secondly, a modern chemicals industry is to be created to supplement and — to some extent — to supplant traditional materials: plastics for timber and metal, man-made yarns for natural fibres, synthetic rubber from casinghead gas instead of alcohol, nitrogen fertilizers from methane, etc. Thirdly, engineering will be modified not only in its product-mix (with emphasis on electrical engineering and instrument making, principally to support automation, and on consumers' durable goods to support the housing drive), but also institutionally (with much more specialization and exchange of semi-fabricates and components between factories). Fourthly, the building industry as a whole will use more prefabricated components; and, following the construction of 22 million dwellings, nearly one household in two will have obtained new accommodation by 1965. Finally, the natural resources of the eastern regions are to be more intensively exploited, the Plan resuming the impetus of the First Five-year Plan but in new locations: whereas in the late 'twenties and early 'thirties the Urals and West-Siberian iron and steel and Central Asian cotton were at the centre of development, the Seven-year Plan looks particularly to ferrous and non-ferrous metallurgy in East Siberia and Kazakhstan and to a consolidation of the recent expansion in the eastern grain fields.

The Seven-year Plan Directives add to these " radical qualitative changes in the structure of production " the provision for " a further rise in all branches of farming, ensuring the satisfaction of the country's continuously increasing demand for foodstuffs and agricultural raw materials ". Among Soviet long-term plans it is no novelty for rapid growth to be envisaged for agriculture; what would be new is a plan's assurance of such progress with as much certainty as underwrites the industrial programme. The targets for farm output are discussed further below.

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[1] More details on developments foreseen in the Plan can be found in Chapter III.

[2] The preamble to the Law of 10 May 1957 replacing the departmental management of industry and building by a regional system observed, " At the present time, when our country has more than 200,000 industrial enterprises and 100,000 building sites, it is impossible to administer production concretely and operationally by a few all-Union ministries and departments ".

The need for all these changes had been decided at the highest level before the Plan draft appeared[3] and in many cases before the publication of the text of its predecessor, the Sixth Five-year Plan. The revitalization of agriculture occupied the attention of the Central Committee of the Communist Party frequently from September 1953 onwards. The foundations of the new industrial policy were laid at a meeting of the Committee in July 1955 — notably by shifting the emphasis of productive investment from new construction to technical re-equipment, calling for specialization among plants as the remedy for wasteful outlay of labour, materials and transport, envisaging renewed exploitation of the natural resources of the eastern regions, and beginning to reappraise the place of chemicals. In August 1955 the Committee resolved that " the present system of drawing up plans must be changed. State plans for industrial sectors must be established on the basis of preliminary drafts made directly in the enterprises ".[4] That meeting called for the drafting of a Sixth Five-year Plan, scheduled to run from 1956 to 1960, but the time-table seems to have allowed too little time either for the draft to embody the new policies and methods or even for it to be made fully consistent.[5] Overall growth since 1956 has in fact been close to the rate foreseen in the Five-year Plan and, so far as industry is concerned, probably closer than the figures for the 1960 Annual Plan (shown below) would suggest, since over-fulfilments of the order of 3 per cent have become a regular feature of industrial development.

Index numbers : 1955 = 100

	1960 Five-year Plan	*1960 Annual Plan*
National income	160	155
Gross industrial output	165	162
of which : producers' goods . .	170	167
consumers' goods . .	160	149
Gross agricultural output	170	127[a]
Railway transport	142	152

Sources : Statistical yearbooks; 1959 Plan Fulfilment Report; and 1960 Plan.

[a] 1958; 1959 output was approximately the same.

The composition of output has, however, differed significantly from that originally planned. One reason is the reshaping of industrial product-mixes; thus the 1960 Annual Plan target exceeds the original goal for crude oil by 7 per cent, falls short of that for coal by 13 per cent, and exceeds that for engineering and metalworking by 6 per cent. But equally important is the fact that primary inputs did not attain the expected expansion. For example, the 1960 Annual Plan target is less than that of the Sixth Five-year Plan by 10 per cent for industrial timber, 12 per cent for pig-iron, 17 per cent for cement and 31 per cent for mineral fertilizers. Farming also is likely to provide much smaller inputs to other sectors than were written into that Plan.

The Sixth Five-year Plan was — unprecedentedly — superseded in mid-course; and it is significant that the preparation of the Directives for the new Seven-year Plan took almost a year and a half and that even then a number of key decisions were deferred at least until the June 1959 Plenum of the Central Committee (see pp. 10 and 18 below).[6]

The Production Goals of the Seven-year Plan

The opening paragraphs of the Plan state its provisions to be " in accordance with the programme for the development of the productive resources of the Soviet Union during the next fifteen years outlined by the Communist Party and set out at the Jubilee Session of the Supreme Soviet of the USSR on 6 November 1957 ".[7] The sights are set, for around 1970, at " winning first place in the world both for absolute output of products and for output per head of the population, which will provide the highest standard of living in the world ".[8] Elsewhere the Directives state " the main objective of the Seven-year Plan is to ensure the further economic development of our country and achievement of a higher standard of living for the people, thereby winning the peaceful competition with the capitalist countries ". The key horizons of the Plan Directives are essentially a set of outputs of producers' goods and of consumers' goods, from which the macroeconomic implications (national product, personal consumption, etc.) are read off, rather than projections of aggregates, attainable in various possible production patterns. The majority of the targets in the Directives are, hence, in physical terms.

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[3] As the " Theses " of a Report for presentation to the XXI Congress of the Communist Party, approved by the Central Committee of the Party on 12 November 1958.

[4] *Direktivy KPSS i sovetskogo pravitelstva po khozyaistvennym voprosam*, Moscow 1958, Vol. 4, p. 445.

[5] It allowed less than two months for factory projects to be prepared, sifted by ministries and presented to the Planning Commission (Gosplan), and Gosplan thereafter only a month to elaborate the full plan for submission to the Central Committee by 1 November 1955. The Draft Directives were published in the following January and confirmed — virtually unaltered — by the XX Party Congress in February 1956. The inconsistency of the Sixth Five-year Plan's output and investment targets was mentioned in Chapter III (especially footnote 62); on its output and manpower targets it is sufficient to observe that its 1960 goal for recruiting 6.6 million workers and employees was already exceeded in 1958. On the appearance of the Plan, the SURVEY for 1956 (Chapter II, p. 5) drew attention to the apparent inconsistencies of its goals for national income, production and consumption.

[6] Many of the elements in the Plan originated at the local level; enterprises prepared projects in parallel with Gosplan, and in all over 70 million people took part in meetings discussing the draft, of whom 4,672,000 made proposals.

[7] For these 15-year targets, see the SURVEY for 1957, Chapter I, Table 21. The electric-power goal then forecast (800-900 million MWh) has already been raised — at a Power Conference in November 1959 — to 900 million by 1970 and 1.5 billion by 1975 to attain 2.3 billion MWh in 1980.

[8] A 15-year plan was being elaborated in 1941 when work was halted by the invasion; the Third Five-year Plan (scheduled for 1938-1942) was delineated in its preamble as that in which " to attain and surpass . . . the most highly developed capitalist countries " came into practical purview.

Gross industrial output in 1965 will be about 80 per cent greater than in 1958, with the producer goods' goal set at an increase of 85-88 per cent and the consumer-goods' goal between 62 per cent and 65 per cent above the 1958 level. The most dynamic sector will be chemicals, output of which will nearly triple with production of new products such as fibres made by polymerization rising to 12-13 times the 1958 rate and of plastics to over 7 times that level. Some of the chemicals which have long been in large-scale production — cellulose fibres and mineral fertilizers — will expand as fast as the branch as a whole but output of ethyl alcohol will increase by only 25 per cent.[9]

The next most dynamic industries would appear to be non-ferrous metals and products based upon timber, but for neither branch have gross-value targets been published. Aluminium output is nearly to triple and copper output is to increase by 90 per cent, with " considerable increases " envisaged for nickel, magnesium, titanium, germanium and silicon. In this field the exploitation of the newly-discovered diamond pipes in Yakutia is of substantial importance in ensuring both domestic requirements of industrial stones and — to judge from the recent agreement with a world-wide selling agency — export earnings from gems; and output in 1965 is to be 15 or 16 times the 1958 level. Although the supply of industrial timber is to rise by barely one-quarter, substitution of other materials (notably plastics) will permit a 140 per cent increase in output of furniture, a 130 per cent increase in cellulose production and a 300 per cent increase in output of cardboard. Paper production, on the other hand, will rise by only 60 per cent (of which newsprint by 80 per cent).[10]

The other branches whose overall rate of growth will exceed the average for industry are electricity generation, building materials and engineering. Electricity supply will be rather more than twice as great as in 1958, with the share of conventional thermal generation (preponderantly using opencast coal, oil and natural gas) apparently remaining constant at 80 per cent; that of hydroplants falling from 20 per cent to 15 per cent, and nuclear power inserting perhaps as much as 5 per cent by 1965.[11] Among building materials, the share of prefabricated concrete components is to continue to expand — by 1958 output was 8 times that of 1953, and by 1965 it should be 2½ times that of 1958. Supporting this, cement output is to rise almost as fast, and other large increments are scheduled for roofing and walling materials (150 per cent for slate, 100 per cent for soft roofing, and 190 per cent for walling in terms of conventional bricks); window glass is to rise rather less than the apparent average for the industry as a whole.[12]

Output in the engineering and other metal-working branches is approximately to double during the Plan period, with " heavy machine-building, instrument-making, radio-electronics, electrical engineering and machine-tool building " singled out in the Directives as the priority sectors. However, the production targets cited in quantities indicate that only special and unit tools qualify for inclusion in the above list (since output of metal-cutting tools as a group will rise only 40-50 per cent, i.e. well below both the Plan average and the 95 per cent rise recorded in the preceding seven years), and that railway rolling stock and chemical and foundry equipment are among the main elements in the growth of heavy engineering output. The Directives scheduled consumers' durable goods for a rise equal to that of engineering as a whole, but a decree of 16 October 1959 revised upwards the goals for 1960 and 1961. If this represents a genuine increase, and not simply a bringing-forward of investment, it would raise the rate of growth of output of these goods well above the average (the figures in Appendix Table II are, however, the original targets).

The four industries whose rates of growth have been set at less than that for gross industrial output as a whole are food-processing, fuels, ferrous metals and the textile and clothing group; all these show expansions of the order of 50-70 per cent between 1958 1965. Each branch, however, comprises some particularly dynamic sector, reflecting the radical changes in product-mixes already mentioned. Thus output of meat, dairy produce and sugar is to double and — by a decree of 26 January 1960 authorizing additional investment during 1960-1965 — high rates of growth are planned for a number of tinned, concentrated, dried and deep-frozen foods. Oil and natural gas extraction are to double and quintuple respectively over the seven years and consequently raise their share in fuel output to 51 per cent in 1965 against 31 per cent in 1958; output of steel sheet will double and of tubes rise rapidly to keep up with the big pipeline programme; and among textiles and clothing the significant changes are the planned rise in the share of man-made fabrics and the elimination of the use of low-quality yarns in the manufacture of hosiery and knitwear.

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[9] This may be due to a deliberate restriction of its inputs — a smaller proportion is to be made from foodstuffs — or because requirements are to be met from the improved range of petrochemicals.

[10] It has been suggested that this is not a large enough rise and that the damage caused to the economy by the continuing paper shortage is much greater than the marginal investment cost of increased paper-making. The capital cost of plants to produce 2-2½ million tons of paper and cardboard is estimated by V. Somnitsky at 5-5½ billion roubles, whereas losses of 15-17 billion roubles are annually incurred by shipping cement and fertilizer in bulk rather than in paper sacks, and flour and other foodstuffs in textile packings rather than in water-resistant bags. The limitation of newspaper and periodical publishing, the severe shortages of catalogues and prospectuses would not be remedied by the existing plan (*Kommunist*, No. 16, 1959, especially p. 49).

[11] The hydro-electric share is the only one for which a definite figure has been stated (*Planovoe khozyaistvo*, No. 7, 1959, p. 35); for the secretariat's estimate of nuclear-power generation, see Sources and methods to Table 17 of Chapter III.

[12] Other contributors to the housing drive are heating radiators (output of which is to rise 170 per cent) and linoleum (12-fold increase). These data, and those on wall materials given above, are provisional targets published before the Directives were confirmed (*Steklo i keramika*, No. 5, 1958, p. 3).

The sights for gross agricultural output have been set extremely high, since the planned 70 per cent rise over the seven years to 1965 represents a continuation of the very rapid growth during the years 1953 to 1958. If calculated net of fodder inputs, the planned increase would be little lower than that of the five years to 1958 but probably 65 rather than 70 per cent (since some part of the planned increase of crop production is not intended for direct human consumption but will serve as input for achieving the higher-than-average growth of animal production). It is supposed to be achieved with a much smaller shift of resources from other sectors than in the past few years.

During the seven years up to 1958 an increase in state investments in agriculture from an annual average of 12.6 billion roubles during 1951-1955 to 22.1 billion during 1956-1958 permitted *inter alia* the increase of the sown area by nearly one-quarter. In collective farms, investments higher by some 80 per cent in 1956-1958 than during 1951-1955, and a 60 per cent increment in farmers' real incomes between 1952 and 1958, were both made possible by huge increases in the receipts of collective farms, the larger part of which stemmed from price improvements.[13] The input problem of the 1959-1965 Plan is discussed in the next subsection; and it is sufficient here to observe that the biggest increases in inputs and output are looked for in the livestock sector: meat production is to double and output of milk and wool to rise by 70-80 per cent. The fodder targets underlying these increases have not been specified; but within the 16-28 per cent increment in the grain crop, maize is to provide an increasing share.[14] Maize is intended to be the most important single contributor to the increase in total grain output since its yield under normal conditions should be more than double that of other coarse grains. The potato crop is to rise by 70 per cent, with some of the increase envisaged as fodder, and " the development of vegetable growing [is to be] to a level sufficient to meet the needs of the people ". The sugar-beet crop is planned to rise by 40-55 per cent, that of cotton by 30-40 per cent and of flax by 31 per cent. At the two extremes of the published crop targets are a 10 per cent rise for oil-seeds and one of 300 per cent for grapes.

These substantial increases take as their base the bumper crop year of 1958 when, exceptionally, precipitation was adequate throughout the main farming regions. The " see-saw " of the past few years — with drought coming either to the south or the east — and the apparent absence of any rise in gross agricultural output in 1959, the first year of the new plan, are illustrative of the difficulty of projecting farm output trends with the same certainty as industrial production; and they go some way to explain the plan's novel emphasis on synthetic substitutes for animal and plant raw materials.

Among other sectors contributing to domestic product, the planned expansions of building and of consumers' services (particularly by virtue of the supplementary targets promulgated by the decree of 13 March 1959) are above the overall rate of growth, while those for transport and retail trade other than catering are somewhat below it. The net material product of the Soviet Union is scheduled to rise by some 62-65 per cent and the rough estimates shown in the previous chapter (p. 5) indicate that the expansion of the corresponding aggregate as defined in the United Nations System of National Accounts would be of the same order of magnitude.

The Inputs of the Plan

It is notable that this 62-65 per cent increment in net material product is to coincide with a 90 per cent increase in productive investment (during 1959-1965 compared with the preceding seven years). This was described in Chapter III, sections 2 and 3; and the factors making for this rise in the marginal capital/output ratio were there reviewed.

The novel element, in this connexion, which marks off the Seven-year Plan from its predecessors is that it is set in a perspective of some fifteen years, with the recognition that five years is too short for long-term planning. This does not mean that less attention than before is paid to the period of maturity of different types of investment, since a time-discount is among the factors explicitly used to rank projects and insistence upon shortening the period of investment — the " gaining of time " — is an emphasized feature of the Directives. However, it does mean that in some branches the output targets of the last year of the plan period are of no more moment than those of a somewhat later date, and that there is less pressure to phase investments during the plan years strictly in relation to the output goals of the final year. This seems to have resulted in a tendency for rather more projects than in the past to be timed for launching in the later years of the plan period and for maturity after 1965 — which alone would tend to raise the marginal capital/output ratio in the plan years even if the investment is in projects with a lower capital/capacity ratio. There may in addition have been more caution in estimating the output results of investment than under previous planning arrangements (reflecting both the impact of decentralization on the planning process and also difficulty in estimating the returns from the intensification and reconstruction of production processes and from altogether new techniques). Certainly the industrial results of the first year of the Plan — an overfulfilment by 3½ per cent of the planned gross output — have been very good, and the sights for 1960 have consequently been raised.

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[13] Of the 64 billion roubles increase in farm receipts from deliveries to the state between 1952 and 1957, 52 billion roubles were attributable to price increases (including quota adjustments) and 14 billion roubles to increased deliveries (see *Economic Bulletin for Europe*, Vol. 10, No. 2, p. 16).

[14] In three main grain-growing republics (the RSFSR, Ukraine and Kazakhstan) the maize area — for grain and silage — is to rise from 18.0 million hectares in 1958 (out of a country-wide total of 19.7 million hectares) to 35 or 36 millions by 1964 (*Pravda*, 23 December 1959). No breakdown is available, however, between maize for grain and for silage. The maize increment is thus so large that the bread-grain supply might even be endangered in some years if prolonged drought occurred in Kazakhstan and Siberia, since a large part of the traditional grain area is to be resown to feed-grains and silage.

However, a major factor genuinely demanding higher inputs of capital per unit of output in future is the stringency in labour supply, and much of the increase in capital inputs may be seen as labour-saving (automation etc.). As originally approved by the XXI Party Congress, the Directives forecast a rise of one-fifth in non-farm employment between 1958 and 1965 (from natural increase and transfers out of agriculture) almost exactly offset by the shortening of working hours. The full impact of the cut in hours will be deferred to the two final years of the Plan, so that the average annual labour increment will in fact be positive. Nevertheless, subsequently — by the Law of 15 January 1960 — the Government decided to make more labour available by military demobilization. The resultant addition of 1.2 millions to a civilian labour force of 95 millions (the expected average gainful employment in 1965) cannot have a major impact on economic growth; and the Soviet Government has stressed that the demobilization is of external political, rather than domestic economic, significance.

Large as the growth of investment appears, the Seven-year Plan envisages that the share of all accumulation (investment in fixed and circulating capital) will by 1965 be only two or three percentage points higher than it was in 1958. Alternatively put, a rise of 62-65 per cent in the national income will be accompanied by a 60-63 per cent rise in consumption.

The Plan therefore stresses the importance of measures within that broad field that can be called ‘ general organization ’, or the more effective use of the resources at hand. A raising of general productivity can be obtained partly by transferring labour to areas where output per man is higher, for example, to the eastern regions for opencast mining (see p. 19 below); partly by increasing personal efficiency (notably by reaping the fruits of past investment in education and health), and partly by a much closer attention to cost reduction by improvements in technique and by reducing waste (whether from the use of obsolete equipment or inefficient methods of planning and management). Moreover the reduction in productivity when the working-day is reduced by one hour to seven hours is normally much less than one-eighth and in some cases need not occur at all. The Directives refer to this, in stating that “ The utmost enhancement of the productivity of social labour is an indispensable condition for the effective fulfilment of the Seven-year Plan. The high rate of growth of labour productivity, which rests on the advantages of the socialist system of economy, on the extensive use of new techniques, on widespread mechanization and automation and on the increased proficiency of workers, will be the chief factor governing the increase in output within the next seven years.”

In agriculture, however, the available information suggests that planned inputs less assuredly provide for the planned expansion of production. If the Plan period is compared with the preceding seven years, total agricultural investment is to be rather more than doubled. Average annual state investment in agriculture is to be slightly lower during 1959-1965 than in 1956-1958; but investment by collective farms is planned to double and to represent 70 per cent of total agricultural investment during the whole Seven-year Plan period, as against slightly more than one-half during 1952-1958. Collective farms cannot look forward to further price increases [15] to help finance their investment, and must hence allot a higher share of current income to accumulation or greatly raise production or both.

Improved farm techniques and more rational crop rotation practices — such as increasing the share of fallow in areas with low rainfall — will, it is hoped, even out year-to-year fluctuations in output. Productivity increases, through the more efficient utilization both of existing means of production and of the additional inputs during the Seven-year Plan, are expected to be promoted by institutional changes (some already made) such as the ownership of agricultural machinery by the collective farms themselves, cash advances to collective farmers and inter-farm joint construction of productive works and social capital.

An important feature of the agricultural part of the Plan is that the state (i.e. other sectors) is not to furnish capital to agriculture at a higher rate than in the recent past. Large as the planned increment in fertilizer output is, for example, it will be a small contributor to output growth,[16] and as yet "we cannot produce as much mineral fertilizer as is necessary because it would require new capacity costing tens of billions of roubles of investment".[17] To raise land fertility, therefore, farms are expected to procure more natural fertilizer (manure, peat, etc.) and to utilize it more effectively.[18]

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[15] Some price decreases, for hitherto unduly-favoured collective farms, for cotton, tea, grapes, citrus fruits and some other kinds of fruit are now under consideration and will be introduced during 1960 (see Chapter II, section 1 (b)).

The foreign trade implications of the Plan are unclear, although from the plans of the eastern European countries [19] it is apparent that the Soviet Union will further extend its role as a major market and supplier for eastern Europe. The planned increase in trade does not however seem to be conceived as a major contributor to raising the efficiency of domestic resources by exchange.

The Consumption Targets

It remains to stress that the stated general objective of the Seven-year Plan and of the longer-term programme, to "lead the world not only as regards total production but also as regards production per head of the population", promises increasing benefits for the Soviet consumer during the plan period. Real per capita income (including housing, health, education and other services) is planned to increase by at least 40 per cent over the seven years; and it is a further feature of the consumption proposals of the Plan that existing income spreads will be diminished. To this end, the Plan envisages, both a reshaping of the wage structure — already started in 1956 — which, by 1965, will reduce by one-third the coefficient of variation of wages, and the progressive diffusion of urban-type amenities and levelling up of regional wage differentials. The second of these developments is taken up in the following sections.

2. THE LOCATION POLICY UNDERLYING THE PLAN

Every Soviet long-term plan, with the significant exception of the Fifth Five-year Plan, has contained a special chapter devoted to the location of production and the various targets for each Union-Republic. Chapter IX of the Directives on the Sixth Five-year Plan thus called for "the better location of production . . . the correct specialization and integrated development of economic regions in the light of the most effective use of their natural and labour resources . . . the acceleration of the opening up of the rich natural resources of the eastern regions of the country . . .". When — as observed in Chapter III, section 3 — the targets of that Plan had been proved inconsistent, the USSR Gosplan submitted a revised version to the Communist Party Central Committee in April 1957. The Committee declined to accept this draft, partly because it was alleged still to contain inconsistencies, partly because "it provided inadequately for opening up the natural wealth of the eastern regions". The Central Committee and Government began to introduce partial regional correctives into the 1960 targets, but on 19 September 1957 efforts to redraw the directives for 1960 were called off by a decree requiring the elaboration of a Seven-year Plan (1959-1965). The decree justified this supersession by the reform of industrial management effected two months before and "the recent discovery of new deposits of raw materials and energy resources which would make it possible to create new enterprises and new industrial centres not foreseen in the Directives on the Sixth Five-year Plan." As its priority instruction to the USSR Gosplan for elaborating the new draft, the decree gave "the opening up on a much bigger scale of the natural wealth of the eastern regions of the country".[20]

The new Plan is thus represented as the culmination of a debate on regional problems at the highest governmental level, but the significance of the change is best viewed against the factors which have hitherto influenced location policy in the Soviet Union, both in favour of and against the dispersal of production throughout its vast territory. It can be said, at once, that the Seven-year Plan seems likely rather to lay the foundations for future changes in the regional pattern of industrial production than to bring about very substantial changes by 1965.

Factors encouraging Dispersal

The Soviet Government has from its earliest days sought to attain four main objectives tending to favour the geographical spread of industry, and which have of late been particularly stressed by Soviet commentators. The first is to raise living standards of populations in regions which, at the time of the 1917 revolution, were based on a backward agrarian or nomadic economy. This was designed both to level-up welfare and as an important element in Soviet "nationalities policy".[21] The second is, through industrialization, to transform semi-feudal or peasant communities into industrial and proletarian centres.[22] Thirdly, it was desired to avoid the shortcomings of capitalism as seen by Lenin—that peripheral regions were exploited for the benefit of the centre and that a divergence was inevitable between levels of living in town and country.[23] Finally, the threat of war was an added reason for the relocation of Soviet industry. When rapid industrialization began under the First Five-year Plan, the two main centres were patently susceptible to enemy attack: Feigin has described Soviet policy at that time as "unceasingly concerned with the development of the productive resources of the eastern regions, with creating there new economic centres, which played an immense role in building socialism and in preparing the defence of the country".[24] Since the war, strategic considerations have continued to favour the dispersal of production, although the post-war problem is different from that posed by danger of overland invasion before the war.[25]

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[16] See Chapter III, pp. 35 and 37.

[17] Mr. Khrushchev, at the Plenum of the Party Central Committee (*Pravda*, 29 December 1959). In similar vein he opposed those who contend that extensive new ploughing of virgin land in Kazakhstan, Siberia and the Far East should continue to be effected from state grants. This, and other land reclamation should, he said, be undertaken only where large state capital outlay is not required.

[18] See in particular section 3 of the Party Central Committee's resolution on agriculture (*Pravda*, 27 December 1959).

[19] See Chapter III, section 5.

[20] Cf. *Direktivy KPSS i sovetskogo pravitelstva po khozyaistvennym voprosam, op. cit.* Vol. 4, pp. 690-783.

While these four aims have played an important part in Soviet policy, a major factor of a wholly economic nature is the location of natural wealth (agricultural land apart) predominantly in the sparsely-settled eastern regions. Thus the eastern regions comprise over nine-tenths of the coal deposits, nearly all the potash and asbestos, all the diamonds, four-fifths each of the hydro-electric resources and timber stands, and the bulk of bauxite, copper, phosphate and peat deposits. Moreover, the fuel and power potential is sufficiently evenly distributed throughout the country to impose no real brake on the exploitation of these resources. Only the Caucasus and Turkmenia lack coal-fields, and these areas have substantial oil and gas deposits. Nuclear power is to be used predominantly to make up such local deficiencies as remain. The recent "solution of the technical problem of the construction of huge power stations and super-range transmission"[26] means that intensive concentration of power generation can accompany industrial dispersal. Hence, the building up of a unified grid: during the Seven-year Plan the existing European Central grid will be linked to those of the Urals and the Ukraine, while networks will be united in Central Siberia, the European north-west and the Caucasus, and by 1970-1975 these will all have joined together.[27]

This does not imply that energy-intensive industry will in fact be significantly dispersed during the seven years: it is rather that the foundations for such dispersal are being built. Thus the new industry for synthetic fibres is being set up in the Urals to use cheap coal and that for organic synthesis at oilfields in this and the Volga Zone.[28] Under the Plan overland trade with neighbouring states will continue to increase; and this factor attracting some industry away from the central zones is discussed in section 3.

Dispersion is also influenced—though less than in market economies—through the subsidization of freight rates. Thus at present a reduction of 25 per cent on normal tariffs is accorded coal originating in basins from which extraction and shipment began after 1 January 1952.[29] Subsidization policy has, however, been directed mainly at specific products rather than regions. Until 1955 coal, coke, peat, ores and timber were shipped at less than cost,[30] and even in the present tariffs (effective from 1 July 1955) they retain an advantage, and coke and timber even a continued subsidy.

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[21] On the first of these, see P. Alampiev, *Planovoe khozyaistvo*, No. 6, 1956, p. 37 and, on the second, A. Danilov, *ibid.*, No. 2, 1957, p. 35, and contributions to a conference of the Social Sciences Section of the USSR Academy of Sciences, June 1958, by B. Gafurov, E. Pavlovsky, K. Meshkauskas, T. Zhdanko and A. Aminov (*Voprosy stroitelstva kommunisma v SSSR*, Moscow 1959, especially pp. 92-93).

[22] For a recent interpretation, see A. Tursunbaev, *Kommunist*, No. 7, 1959, pp. 61-73.

[23] The latter is a feature that finds a place in expositions of the Seven-year Plan (e.g., *Planovoe khozyaistvo*, No. 6, 1959, p. 6); but, since the margin between urban and rural standards has been greatly diminished in the past six years or so, the Seven-year Plan maintains the present relationship, with possibly some slight narrowing. The increment for worker and employee incomes is described as "40 per cent on average" and for collective farmers is stated to be "not less than 40 per cent".

[24] Ya. Feigin, *Razmeshchenie proizvodstva pri kapitalisme i sotsializme*, Moscow 1958, p. 492.

[25] See Colonel A. Lagovsky, (*Strategiya i ekonomika*, Moscow 1957, p. 112).

[26] M. Vilensky at a meeting of the Institute of Economics in October 1959 on space economy, *Voprosy ekonomiki*, No. 12, 1959, p. 158. See also his article in *ibid.*, No. 10, 1959, pp. 3-14. At the same meeting, however, R. Rakhimov (Tadzhik Academy of Sciences) called for local power self-sufficiency at least in his own Republic.

[27] I. Krasnov, *Planovoe khozyaistvo*, No. 9, 1959, p. 19; the policy is one of concentration of generation with dispersal through high-voltage transmission (*ibid.*, p. 23). Grid links in the Seven-year Plan will also extend internationally to Poland from Kaliningrad Oblast, from Poland to Volhynia and to Hungary from the western Ukraine. For a map of the European-part 400 kv grids see A. Rotman, *Enȩrgetica* (Bucharest), No. 11, 1959, p. 469.

[28] N. Shokin, at the meeting mentioned above, *Voprosy ekonomiki*, No. 12, 1959, p. 158.

[29] *Tarifnoe rukovodstvo*, No. 1, Moscow 1957, p. 91. As this "infant industry" concession is directed to local integrated development the rebate does not apply to long hauls. In the past subsidies seem to have been more important than now. The charge in the thirties (when the Ural-Kuznetsk combine was being created) for shipments of Kuzbas coal to the Urals was roughly half the actual haulage cost. (For the sources and a full analysis see F. Holzman, *Quarterly Journal of Economics*, August 1957, pp. 368-405).

[30] In 1940, when freight receipts exceeded carriage costs by 23.3 per cent, these goods (little short of half of all freight turnover) were charged rates on average 15.4 per cent below cost (A. Arkhangelsky, A. Kreinin, *Voprosy ekonomiki*, No. 11, 1957, p. 114).

Railway receipts as percentage of costs

Per ton-km.

	1940	*1956*
Producers' goods	104.0	121.1
of which : Coal, ores, peat and timber	84.6	107.9
Consumers' goods	152.6	138.1
of which : Food	..	163.4
Manufactures	..	236.3
Grain	..	113.2

Source : Voprosy ekonomiki, No. 11, 1957, p. 114.

From 1942 to 1948, moreover, all freights were on average shipped below cost (the peak proportionate loss exceeding one-third in 1947) and there still appears to be support to freight charges from passenger fares. Such a tariff policy should have encouraged dispersion, but, under the ministerial administration of industry, it rather encouraged cross-hauls: output goals had more priority than cost goals, and the former required secure, rather than cheap, inputs.

The Influence of the Location Heritage

The location of Soviet industry on the eve of the First Five-year Plan was much as Friedrich Engels had described it in a preface to an edition of the Communist Manifesto: " around the Gulf of Finland, in the central regions (Moscow, Vladimir) and on the shores of the Black and Azov Seas ". A Soviet author considers that the location of production in Tsarist Russia was even more unevenly distributed than in the countries of western Europe; but he points out that the technological level of manufacturing industry was equal to, and its degree of concentration higher than, the contemporary west-European level.[31] By eliminating much of artisan industry, which did not reach those levels, the Soviet Government, after the end of the New Economic Policy (NEP) in the twenties, removed significant contributors to industrial dispersion and recognized the importance of concentration and scale in rapid industrialization.

The mineral resources known in the early years of Soviet industrialization were concentrated in well-defined 'islands', and only the intensive geological surveys of the Soviet period have shown how widely dispersed are mineral deposits. These resource 'islands' were already linked by railways which were built, broadly speaking, ahead of other development. With relatively little new railway investment (replacing of light with heavy rails, more rolling stock, some double-tracking) their resources could be used a great deal more intensively, whereas the development of other areas would have required new railway — or road — investment. However, some resources outside these 'islands' were brought into use even with the existing railway network — the Urals-Kuznetsk combine, for example.

Although some additional major railways were built to draw in new resource-centres, as the Pechora and Turk-Sib lines instance, the Soviet planners have until now drawn maximum advantage from depressing the input/output ratios in transportation.[32] They have chosen to intensify use of the railways to free resources for other productive ends, rather than to invest in remoulding transport to serve a relocation of production. Such a relocation would have required a considerable investment in transport, since the October Revolution came at the height of the Railway Age and the transport legacy of the Tsarist era was all in railways. Lack of roadstone in the populous European part had inhibited highway construction, and most rivers — by reasons of freezing or direction — were unsuited to intensive use.

The priority granted heavy industry under successive plans favoured rail haulage since both shippers and consignees of its products require rail terminals, which are much less needed by light industries; and the determination to extract maximum advantage from economies of scale also favoured the concentration of large weight-consuming enterprises close to their mineral sources. In light industry, on the other hand, where increasing returns tail off at a relatively small unit size and the goods produced are of a high value/weight ratio, output is preferably as dispersed as its agricultural raw materials or its consumers. Had preference gone to this sector in the five-year plans, industry might well have been more dispersed and road development probably correspondingly greater. However, railways still carry five-sixths of the freight and three-quarters of the passenger traffic; three-quarters of rail freight are carried over one-third of the track, and one in ten railway passengers travels on the network linking Moscow to Leningrad.

The three main features of transport construction which correlate with location policy in the Soviet Union are hence, for heavy industry, the opening up of new resources by railways and the intensification of existing rail links and, for consumers' goods, the development of the road network. The latter will be needed to serve the planned expansion of output of small manufactured goods and perishable foodstuffs, which should take place in the first case in plants situated near consumers and in the second case near producers — both of whom are widely dispersed.

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[31] Feigin, *op. cit.*, pp. 167-170.

[32] Between 1928 and 1957 the aggregate of " traffic units " by all means of carriage grew 11.3 times (adding ton-kilometres to passenger-kilometres in the absence of more precise measures of output), while capital stock (including communications) rose 6.7 times and manpower 4.2 times. On the railways each kilometre of line bore 1 million ton/km. in 1913 and 11 million in 1958 and will carry up to 14 million in 1965.

First, the Seven-year Plan provides proportionately the same extension of railways as envisaged in the Sixth Five-year Plan (an addition of 7.3 per cent of new broad-gauge line in the one and 5.4 per cent in the other), which is, for the Soviet period, a more rapid rate of addition than at any time except during the pre-war five-year plans. Moreover, almost all the new lines are to be in the eastern regions and thus will add 19 per cent to the network in those parts (in 1958 they had 48,000 km. out of 123,000 km. in the Soviet Union).[33] The object of much of the new construction is the development of a basic industrial centre in eastern Siberia, which, in the stage covered by the Seven-year Plan, will imply heavy east-west bulk traffic. The Plan envisages, therefore, the completion of the South- and Central-Siberian lines to supplement the presently overloaded Trans-Siberian railway; but it excludes the North-Siberian line, the investment cost of which was considered too great, and the trans-desert link across Kazakhstan between the Aral and Caspian Seas (the preparation of which was scheduled in the Fifth Five-year Plan), presumably because East-Siberian traffic has higher priority than Central Asian.[34]

The second feature of transport investment in the Plan complements this opening of the Trans-Siberian bottleneck, by raising the capacity of the existing line through its electrification and by providing relief from the carriage of petroleum products through construction of two parallel pipelines.[35]

The third relevant feature of the Plan for transport is that the share of lorry freights is to rise only from 4.8 per cent to 5.8 per cent while pipeline throughput is to leap from 2.1 per cent to 7.3 per cent of all traffic — indications of a growing preponderance of bulk, centre-to-centre traffic. Moreover the length of road has been steadily declining since 1950, and by 1958 was somewhat less than in 1913 (disuse in the European part — Trans-Caucasus excluded — more than offsetting new construction in the east); and the 44,700 or so kilometres of directly state-financed road, which is the only specific target for construction in the Seven-year Plan[36] will not bring the length back to its 1950 peak (1.55 million km.). Almost half of this new construction is to be in the eastern regions, just under 15,000 km. being in the Asiatic RSFSR and Kazakhstan, chiefly — as the Directives require — to serve the virgin-lands zones.

Thus the transport system will tend to perpetuate the existing pattern of industrial location unless additional heavy investment costs in this sector are incurred.

A further influence in preserving the legacy of industrialized 'islands' — which should, however, be attenuated under the Seven-year Plan — resides in industrial administration. When planning the location of new plants the former ministries saw each problem in terms of external economies, for outside the existing centres they were responsible for creating much of the necessary infra-structure capital. The scope for sharing infra-structure services in new development centres was recognized, but there was very little of the inter-ministerial consultation that such joint projects would have required.[37]

The Investment Cost of New Location

Even though this administrative difficulty had been substantially resolved by the time the Seven-year Plan was in preparation, the problem of the high capital cost of new locations remains. It is one both of productive and of social investment, and in order to " save time " in catching up with the main capitalist states — posed as an aim of the Plan — strong emphasis has been placed on reconstructing existing enterprises.

The Directives made it clear that in " a number of sectors, especially in manufacturing . . . the basic trend should adhere to radical reconstruction and the extension and technical re-equipment of operating enterprises along the principle of comprehensive mechanization, automation and new techniques, all of which involve an extensive renewal and modernization of plant." For these sectors investment will maintain, rather than re-shape, the location heritage. In " regions with newly-discovered natural wealth " the Directives referred particularly to such activities as " oil

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[33] Outside the eastern regions the new construction is to be in the Volga Zone and around Belgorod (to open up the new iron-ore deposits). The network here computed includes the Volga Zone.

[34] Cf. T. Khachaturov, *Promyshlenno-ekonomicheskaya gazeta*, 8 October 1958, *Transportnoe stroitelstvo*, No. 1, 1959, p. 3. For a map of the Central Asian project see *Economic Bulletin for Europe*, Vol. 9, No. 3, p. 50.

[35] On railway electrification and pipelines in the Plan see *Economic Bulletin for Europe*, Vol. 10, No. 3, pp. 37-40. The description therein is subject to two changes in the light of subsequent information. The lines in the north-west are not to be electrified in the current Plan (Moscow-Murmansk via Leningrad and via Vologda, and Vologda-Vorkhuta), possibly because thermal power, on which the Plan relies more than was envisaged at the time these projects were elaborated (early 1958), will be too dear or too scarce. Secondly, the crude-oil pipeline from Tuimazy (Bashkiria) to Irkutsk is being paralleled by a products line from the Omsk refinery (fed by a separate crude line built from Tuimazy three years ago).

[36] No information on the length of road to be built appears in the Directives; these data are from *Avtomobilny transport*, No. 3, 1959, pp. 2-3. These figures, however, do not comprise the *corvée* imposed on collective and state farms and industrial and building enterprises by the Decree of 26 November 1958 to build local roads (cf. *Avtomobilny dorogi*, No. 12, 1959, p. 5).

[37] Feigin accused " many ministries for refusing to construct their plants in the eastern regions, straining under various pretexts to locate them near Moscow or in other regions of the European part, especially in the Centre." and described the numerous ministerial plan offices, each elaborating on its own projects and prognoses for the same centres (*Kommunist*, No. 14, 1956, pp. 34, 44). See also V. Kostennikov, *Kommunist*, No. 14, 1955, p. 43.

TABLE 1

Indicators of social-capital stock per 10,000 inhabitants in regions of the Soviet Union in 1958

	Hospital beds	Doctors [a]	Shops	Clubs	Libraries	Books in libraries [b]	Cinemas	Theatres [c]	Radio and TV sets
Russian Federation	75.7	17.9	25.0	6.1	5.8	36.6	43.1	25	66.5
European RSFSR	74.3	19.9	24.4	6.0	6.0	38.8	40.0	25	..
North	84.4	12.3	33.9	7.8	7.9	42.2	62.5	27	..
North-west	94.9	31.7	24.9	4.8	5.1	47.1	39.7	35	..
Centre	72.6	18.4	22.6	6.1	5.9	37.7	37.2	22	..
Volga	75.4	19.2	25.9	6.8	6.6	39.9	42.6	28	..
Northern Caucasus	62.4	17.7	26.5	5.0	6.0	35.3	41.7	23	..
Ukrainian and Moldavian SSRs	71.6	17.0	25.4	6.8	7.9	40.4	30.3	19	48.1
Transcaucasian Republics	66.7	25.9	25.2	5.5	7.2	34.4	26.9	43	53.5
Byelorussian and Baltic Republics	71.5	15.5	23.8	7.3	10.3	38.6	31.7	29	62.1
Western regions	*72.7*	*18.8*	*24.7*	*6.3*	*7.1*	*39.0*	*35.4*	*25*	..
Asian RSFSR	78.4	14.8	26.3	6.4	5.5	32.4	49.0	25	..
Urals	77.3	14.4	23.8	5.6	4.7	32.3	39.1	24	..
West Siberia	70.7	13.1	27.0	6.9	5.8	32.0	50.3	19	..
East Siberia	82.1	15.4	28.3	7.5	6.4	32.1	59.5	29	..
Far East	99.0	20.6	30.4	5.7	5.9	34.0	65.8	37	..
Kazakhstan	78.1	12.3	27.3	5.3	6.5	25.8	39.3	20	35.0
Central Asian Republics	62.4	12.6	20.9	4.5	4.4	22.4	22.3	34	33.0
Eastern regions	*74.9*	*14.0*	*25.3*	*5.8*	*5.4*	*29.2*	*41.8*	*26*	..
Total USSR	*73.4*	*17.3*	*24.9*	*6.2*	*6.6*	*36.0*	*37.3*	*25*	*58.0*

Sources: *Narodnoe khozyaistvo SSSR v 1958 godu*; *Narodnoe khozyaistvo RSFSR*; *Narodnoe khozyaistvo RSFSR v 1958 godu*; *Kulturnoe stroitelstvo RSFSR*; January 1959 census.

[a] Excluding dentists. [b] Per ten inhabitants. [c] Per million inhabitants.

and gas extraction, power generation, extended raw-material exploitation ". Within the generally rising trend of the capital/output ratio in these industries (cf. Chapter III, pp. 17-19), there would seem to be resources in the eastern regions which can be exploited at a lower capital intensity than in the west (notably in open-cast mining).

The increase in the share of the east in metallurgy will however occur despite the origination of the bulk of the Seven-year Plan increment of output in existing metallurgical plants (see also Chapter III *loc. cit.*). For other important industries the absence of data, both on expected regional shares and on reliance on existing plants, suggests that these distributions were not decided upon when the Plan Directives were approved by the Party Congress, which significantly failed to allocate by region over one-quarter of centrally-planned State investment (see Table 7). The Plenum of the Party Central Committee in June 1959 was devoted mainly to the possibilities of expanding output from existing factories [38] — chiefly in the European part of the country and the Urals Zone — and the pledges, which preceded the Committee session, to over-fulfil the Seven-year Plan industrial targets by more efficient use of existing capacity originated in these areas.

The USSR Gosplan has apparently adopted two criteria to rank the use of capital appropriations, both of which would favour developed regions.[39] The first, that capacity-utilization norms be the same for all enterprises (subject to uniformity of materials), implies no allowance for below-capacity output when an enterprise is constructed in advance of local demand to reap eventual economies of scale. The second is that " specialized " enterprises (explained as those producing semi-fabricated metal goods, metal and wooden components, etc.) be set up in " regions best suited to that type of output when account is taken of electricity and raw material availabilities and other factors as well as the economic needs of that region for those products ". Such " specialized " enterprises should supply other regions where the creation of similar plants is castigated as " parochialism " (*mestnichestvo*), since it results in capacity creation ahead of demand and consequently in inadequate use of plant.

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[38] Work on planning at least some re-equipment programmes began after that Plenum. Cf. leading articles, *Energetik*, No. 11, 1959, especially p. 3; *Sakharnaya promyshlennost*, No. 11, 1959, especially p. 4; *Gidrotekhnicheskoe stroitelstvo*, No. 11, 1959, especially p. 4; *Gidrolisnaya i lesokhimicheskaya promyshlennost*, No. 8, 1959, pp. 1-4.

[39] V. Kurotchenko, *Planovoe khozyaistvo*, No. 9, 1959, pp. 3-14.

The Plan — as Chapter III and section 1 of this Chapter have already observed — provides for a substantial improvement in social amenities, which at present show a marked contrast between per capita levels of housing and of other social capital. No data have been published on the regional distribution of the housing stock, but for 31 towns such information is available.[40] In 19 towns in the European part of the country the dwelling space per inhabitant was precisely the all-Union average of 7.8 square metres, but in the 10 towns in the Asian part the stock was 6.5 square metres per person. On the other hand, as Table 1 shows, the statistics available on other social capital show an eastern-region lead in per capita hospital facilities (as measured by numbers of beds), shops, clubs, cinemas, theatres and probably also radio sets. The western regions were better off only for libraries and medical services (as measured by numbers of physicians).[41]

The objective of the Seven-year Plan " to liquidate the housing shortage in the country " must thus comprise particularly strenuous efforts in the eastern regions — the more so if enterprises are created requiring new settlers from the west. Mr. Khrushchev during last year made frequent public reference to the need to improve social capital and especially housing in certain eastern urban and western rural districts.[42]

Although the eastern regions seem to be better endowed with other social capital, the growth of their population is more rapid than in the western regions. So far as regional statistical abstracts show, the rate of natural increase in the eastern regions is roughly double that of the European part, the 1955 range among Union-Republics (shown in Table 2) being from 5.8 per mille in Latvia to 30.3 per mille in Azerbaidzhan. By itself this would imply a need for more social-amenity investment in the east to maintain parity with standards in the west; but the corollary to the immense achievement of the Soviet health services in bringing crude death-rates to a uniform level (a range of 7 to 8 per mille embraces the rates of all but three Republics) is that this variation is caused by natality. In some areas of the east the age composition of the population — as a result of the recent immigration of young people — is favourable both to relatively low death-rates and to high birth-rates,[43] and it is likely that age-specific fertility rates are higher in the east than in the west. In the long-term plan, therefore, provision must be made for heavy calls on education and health services — the largest component, after housing, of social capital.

TABLE 2

Crude birth rates and natural increase of population by Union Republic in 1955

Per mille of population—Republics in descending order of natality

	Births	Deaths	Natural increase
Turkmen SSR	39.0	8.9	30.1
Azerbaidzhan SSR	37.9	7.6	30.3
Armenian SSR	37.4	8.7	28.7
Kazakh SSR	36.9	9.0	27.9
Tadzhik SSR	34.8	9.1	25.7
Uzbek SSR	34.7	8.3	26.4
Kirgiz SSR	34.0	7.9	26.1
Moldavian SSR	30.2	8.3	21.9
Russian Federation	25.6	8.4	17.2
Byelorussian SSR	24.6	7.3	17.3
Georgian SSR	23.5	6.6	16.9
Lithuanian SSR	20.9	9.1	11.8
Ukrainian SSR	19.7	7.4	12.3
Estonian SSR	18.2	11.9	6.3
Latvian SSR	16.3	10.5	5.8

Sources : Zdravookhranenie v Uzbekskoi SSR, 1958 ; *Zdravookhranenie v Moldavskoi SSR,* 1958; Union-Republican statistical abstracts; Turkmenia — direct communication from the Soviet Government.

To these needs to keep the less-developed areas up with rising all-Union standards must be added the costs of installing immigrants in such areas.[44] No figures of expected movements have been forecast, as they were for the Sixth Five-year Plan when the increase of 3 million in employment in the eastern regions was to be based on immigrants to the extent of 70-80 per cent. Evidence is presented in the next section, however, that about the same number will have to migrate during 1959 to 1965. A certain move may possibly be discerned, from the Plan targets cited below, to disperse some industry to rural districts to take advantage of the lighter pressure on rural than on urban housing stocks; and this would also serve to provide farmers with amenities associated with industrial centres.

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[40] The only statistics in the republican and *oblast* abstracts were for the Kabardino-Balkar ASSR. Data for 31 towns at the beginning of 1959 were published in *Narodnoe khozyaistvo SSSR v 1958 godu*, but those for Moscow and Leningrad were not brought into the calculation in the text because the source did not make clear whether suburbs were included.

[41] The expansion of medical services beyond that of physical facilities was discussed in the SURVEY for 1958, Ch. IV, p. 17.

[42] Cf. speeches at Kiev, Vladivostok, Bratsk and to the Party Central Committee (reported in *Pravda*, 12 May, 8 and 10 October and 29 December 1959).

[43] It is probably for this reason that, for example, Pavlodar *oblast* shows 41.1 births per mille (within the Kazakh 36.9), and Novosibirsk *oblast* 30.4 (within the Russian Federation 25.6).

[44] While Gosplan presumably made estimates of these costs, there was a long period when little was published on regional social-capital coefficients. N. Kovalevsky, *Razmeshchenie proizvoditelnykh sil*, Moscow 1932, Vol. I, p. 345, elaborated the problem, but it does not seem to have been raised again in published work until Feigin, *op. cit.*, p. 45. For further notes cf. Ya. Kvasha and V. Krasovsky, *Voprosy ekonomiki*, No. 8, 1959, p. 4.

Gross industrial output (1958 = 1)

Districts with percentage of rural population

above RSFSR average		*below RSFSR average*	
Mordvin ASSR	6	Gorky *oblast*	1.5
Pskov *oblast*	2	Novosibirsk *oblast*	2
Bryansk *oblast*	2.3	Rostov *oblast*	2
Bashkir ASSR	2.4	Irkutsk *oblast*	3
Novgorod *oblast*	2.1	Jewish aut. *oblast*	2
Krasnoyarsk *krai*	3	Leningrad *oblast*	1.5

Sources : *Plenum TsK KPSS 24-29 iyuliya 1959 g.*, Moscow 1959, pp. 154, 335, 403, 754 and 789; *Pravda*, 20 January and 26 November 1959; *Dengi i kredit*, No. 9, 1959, p. 5; *Soviet News*, 8 May 1959. Other district plans have not come to the notice of the secretariat.

Note. — Regions are ranked in declining order of percentage shares of rural population in the total.

In so far as a high share of rural population indicates relative under-development, the higher rates of growth may be indicators of the lack of industry today and of a policy to hasten forward the hitherto less-developed areas. Thus the republics which are to show the speediest industrial growth in the Seven-year Plan are Moldavia, Armenia, Kazakhstan and those of Central Asia. The ones which are to obtain increased shares of new capital are Byelorussia, Armenia, Kazakhstan and the Central Asian republics (see, respectively, Tables 9 and 7 below).

3. Progress in the Dispersal of Production

The Expansion of the Eastern Factor Endowment

There are some regions of the European part of the Soviet Union which were not beneficiaries of the country's industrial " take-off " (notably Byelorussia, the Far North and the Caucasus), but the centre of attention in Soviet location policy has been the eastern, or Asiatic, regions. The conclusion of the last section suggests that the Seven-year Plan offers a higher ranking than before to certain of the zones peripheral to the European centres, but the present general analysis is made in terms of east and west.

The geographical division of the Eurasian land-mass is conventionally made along the Urals and the Volga Basin, but the extensive mineral resources of the one and the belt of black-earth across the other preclude any precise economic delineation. All or part of the six administrative regions which the USSR Gosplan includes in its " Urals " economic zone are both within the Volga Basin and to the west of the Urals,[45] but its present practice is to describe the whole as an " eastern " area. The administrative regions bordering the Lower Volga (i.e. from its confluence with the Kama) and the " Volga " economic zone, are, on the other hand, no longer treated as an " eastern " area. The Seven-year Plan Directives, which state that " the main improvements in the distribution of productive forces in the coming seven years are intended first of all along the line of accelerating economic development in the eastern regions ", specify these regions as the Urals, Siberia, the Far East, Kazakhstan and Central Asia.

Land and Labour

The labour force in the eastern regions has been as much augmented, in the years of Soviet industrialization, by immigration from the European part as by the combined natural increase of previous settlers and natives.[46] As Table 3 shows, the population of these regions increased by 78 per cent between the censuses of 1926 and 1959, whereas the total population rose by only 25 per cent.[47] As a result of the inflow from the west and migration from rural to urban areas within the region, the town population of the eastern regions rose by 119 per cent in the past twenty years while the rural population declined by 1 per cent. The biggest intercensal increases in urban population in the eastern regions were in the Far East (172 per cent), the

Table 3

Population, natural increase and immigration in the eastern regions of the Soviet Union, 1926 to 1959

Millions

Census year	Population	Estimated intercensal natural increase	Estimated intercensal net immigration
1926	34.8	..	3.4 [a]
1939	45.5	4.2	6.5
1959	61.8	9.1	7.2 [b]

Sources and methods : See Appendix B.

Note. — Net immigration is the number of immigrants and their offspring surviving to the census date *less* emigrants and returning migrants.

[a] Population enumerated by the 1926 census in these regions and not born in the district of registration.

[b] Of which net increase of urban population in 1941 and 1942: approximately 2 million.

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[45] The whole of the Bashkir and Udmurt Autonomous Republics and of Perm *Oblast*, and parts of Chelyabinsk, Orenburg and Sverdlovsk *Oblasts* (see Map 2).

[46] Of the 34.8 million in the eastern regions in 1926, 11.8 million were indigenous Asian nationalities not culturally associated with European Russia, as over the preceding two centuries had become such peoples as the Udmurts (of Finnic stock). Those Asian nationalities separately enumerated in both the 1926 and 1939 censuses rose from 11.0 to 11.4 million (4 per cent increase).

[47] Adding to the 1926 census an estimate for the contemporary population of areas incorporated in the Soviet Union during 1939-1945 (as shown by interpolation of the 1913 and 1939 estimates for those areas in *Narodnoe khozyaistvo SSSR v 1958 godu*, p. 7). The population of the territories incorporated in the eastern regions (Tuva, South Sakhalin and the Kuriles) was too small to affect the percentage increment cited in the text.

TABLE 4

Regional distribution of sown area, 1913 to 1958

Millions of hectares

Year	Eastern regions	Western regions	Total
1913	24.9	93.3	118.2
1926 [a]	19.9	70.3	90.2
1938 [a]	40.3	96.7	137.0
1950	42.7	103.6	146.3
1956	79.3	115.5	194.7
1958	80.5	115.1	195.6

Sources: *Narodnoe khozyaistvo SSSR v 1958 godu, Statistichesky spravochnik SSSR 1927*; and *Sotsialisticheskoe selskoe khozyaistvo Soyuza SSR*, 1939.

[a] Contemporary area. The figures for the eastern regions are unaffected by territory subsequently incorporated, since sown areas at these dates in Tuva and South Sakhalin were less than 0.1 million hectares.

Tadzhik and Kirgiz SSRs (159 and 156 per cent) and the Kazakh SSR (140 per cent).[48] These areas (together with the Uzbek SSR) were the only ones where there was also a rise in the rural population. In the Urals and western Siberia the urban population more than doubled, while there was a 14 per cent decline in rural areas. The eastern regions have thus become more urbanized than the west (50 per cent against 47 per cent in 1959), whereas at the previous census the position was the reverse by a slightly smaller margin (31 per cent against 32 per cent in the west).[49] A decennial census, had it been taken in 1949, might have shown a higher degree of urbanization, for it was the launching in 1954 of the campaign to open up virgin lands in Kazakhstan and Siberia which brought substantial immigration for work in agriculture.

In contrast with the agrarian-oriented movements of the Tsarist period, the west-east migration under the five-year plans was above all to create extractive and manufacturing industry. By 1950 the sown area of the eastern regions, as Table 4 shows, was barely 18 million hectares greater than in 1913, but it has since been doubled by adding 38 million hectares. The adoption of more extensive cultivation practices has depressed the rate of intake of farm-manpower below that of the increases in the sown-area; and the predominant direction of the eastward migrants to extractive and fabricating sectors has further diminished the ratio of population to soil exploitation in the areas of settlement. In every eastern zone, except the Far East,[50] sown area per rural resident rose during 1926 to 1939 and no less than doubled between 1939 and 1959 for the eastern regions as a whole; and the data underlying Table 5 show that in Siberia and Kazakhstan, taken together, population per 100 hectares of sown area has fallen from 165 in 1926 to 101 in 1938 and thence to 52 in 1959.

In the west, emigration and lower rates of natural increase — partly due to fertility differences and partly to the heavier death-rate imposed by the war — have together lessened still further the concentration of population in the fertile triangle which has been the historical home of the eastern Slavs. The triangle, whose base is the western frontier and whose apex is in the southern Urals, now comprises — as Table 5 shows — zones with a significant diminution of population per hectare sown (notably 52 per cent and 43 per cent declines between 1926 and 1959 in the Volga and the Central Black-Earth Zones respectively).[51]

The migration estimates in Table 3 show a peak flow in the period covering the pre-war five-year plans. Expressed as average annual rates, the estimated net movement into the eastern regions was 185,000 in 1894-1914, 500,000 in 1926-1939 and 360,000 in 1939-1959. Movement between west and east in the

TABLE 5

Regional distribution of population per 100 hectares of sown area, 1926 to 1958

	1926	1938	1958
Russian Federation	158	116	102
North	280	202	300
North-west	350	454	391
Central non-black-earth	219	180	188
Central black-earth	135	102	77
Volga	120	66	59
North Caucasus	114	82	78
Urals	141	95	100
West Siberia	151	86	58
East Siberia		144	105
Far East	183	260	221
Ukrainian and Moldavian SSRs	131 [a]	121 [a]	130
Kazakh SSR	206	101	32
Byelorussian and Baltic Republics	196 [a]	167 [a]	143
Transcaucasian Republics	387	319	375
Central Asian Republics	327	207	252
TOTAL	162 [a]	124 [a]	107

Sources: As for Table 4.

[a] Without allowance for frontier changes of 1939-1945.

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[48] Among the western regions only Armenia showed as large an urban increase (142 per cent). Overall, the western town population rose by 49 per cent and the rural population dropped by 21 per cent.

[49] Including the 1939 population of districts not incorporated in the USSR at the time of the census, but within the present frontiers.

[50] Only 899,000 hectares in 1938.

[51] The biggest changes have been in the less industrialized regions, e.g. Orel Oblast, Mordvin ASSR; while the reduction has been fairly steady in the Central Black-Earth Zone, it was confined to the pre-war period so far as the Volga Zone is concerned. In the Ukraine no diminution has been shown, since population growth net of depletion by migration and war loss has been at the same relatively slow rate as the extension of sowings.

last twenty years was, however, much more a two-way traffic than in any preceding period. At the outbreak of war so many moved to the eastern regions that, despite the mobilization of some millions of men for the armed services, the urban population and the numbers of wage-earners in those regions increased by 2 millions. Some of these evacuees returned to the west as the tide of battle receded, but the transfers of national groups suspected of disaffection on the eve of, or during, the war were almost wholly from the western into the eastern regions and may well have numerically offset this retromigration.[52] Since 1957 return movements of the transferred nationals have been reported, and by the time of the census of January 1959 some 300,000 persons had been resettled in the North Caucasus.[53] There must also have been substantial east-to-west movements in connexion with the amnesties of 1953-1954. The post-war migration peak seems to have been reached between 1954 and 1958, when the virgin lands of Siberia and Kazakhstan were being opened; and during this period the Communist Youth League arranged the emigration of 1,950,000 young people to these areas, to the north and to the Donets Basin.[54]

No official statement has been made upon the migration which the development of the eastern regions will require under the Seven-year Plan, but the order of magnitude may be inferred. The country-wide increment of 12 million wage-earners (" workers and employees in the national economy ") may be distributed between the eastern and western regions in the proportion envisaged for centrally—planned investment (discussed below) — over 40 per cent in the east.[55] The 5 million which is thus indicated for the east may be met by some 4 million locally recruited or one-third (the proportion of population in the eastern regions) of the country-wide entry into the labour force. Of the 17 million wage-earners in the eastern regions in 1958, some 2 millions can be expected to retire between 1959 and 1965, so that immigration of some 3 millions seems therefore to be necessary.

A sizeable proportion of this inflow can be met by encouraging men demobilized from the armed forces (1.2 million during 1960 and 1961 according to the Law of 15 January 1960) to settle in the east, as some of their colleagues demobilized in 1955-1956 responded to appeals to go to the virgin lands of Kazakhstan and Siberia.[56] A decree of 26 January 1960 provided financial and other inducements for demobilized officers and men to settle in the North, Urals, Siberia, Far East and Kazakhstan.

The need to minimize transfers from civil occupations in the west and to diminish reliance on seasonal flows of students and office workers (chiefly for harvesting),[57] has been at the forefront of discussions on the planned balance of labour in the east. The Deputy Director of the Institute of Economics and Industrial Organization of the Siberian section of the Academy of Sciences has analysed the various possibilities in Eastern Siberia and the Far East for mobilizing housewives and private-plot farmers, for a more rational use of industrial working time and for reducing labour intensity in regional production.[58] The Seven-year Plan for the Russian Federation (comprising most of the eastern development areas) requires that the rise in labour productivity ensure 80 per cent of the increment in industrial production and all the increment in building output; [59] and that for timber felling (over one-half of which is to be in the east by 1965) comprises an increase of 70 per cent in labour productivity to release 400,000 workers for other employment.[60] Moreover, the most recent source of demand — the virgin-land campaign — is not intended during the Seven-year Plan to require much new labour.[61] At the December 1959 session of the Party Central Committee Mr. Khrushchev stated that extension of the sown area in the east should by and large be made only where existing resources permitted.[62] Even so, some 8-9 million hectares may be ploughed up during the seven years in the Russian Federation [63] compared with 16 million hectares ploughed up during 1954-1958. In Kazakhstan, on the other hand — where in 1954-1958 over 20 million hectares were newly brought under the plough — the Plan Directives gave first priority to the introduction of proper crop rotations and simply observed that " work to bring new lands under cultivation will be continued ", while at the December 1959 Plenum the First Secretary of the Republican Communist Party no more than drew attention to the scope for the eventual ploughing of 4-5 million hectares.[64]

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[52] The transfers were from the Baltic States and western regions of the Ukraine and Byelorussia after their incorporation severally into the USSR in 1939-1940 and in connexion with the abolition of the Volga-German ASSR in 1941, and of the Checheno-Ingush, Kabardino-Balkar, Kalmyk, and Crimean ASSRs and the Karachai-Cherkess Autonomous *Oblast* in 1943-1945.

[53] The population of the four North-Caucasian national regions re-established in early 1957 was 1,235,000 at the April 1956 estimate and 1,591,000 at the 1959 Census. The 1956 rate of natural increase in the Checheno-Ingush ASSR (17.4 per mille) may, in the absence of data on its neighbouring regions, be applied to show a 1959 expected population of just under 1.3 millions.

[54] This figure is exclusive of temporary harvest help, which exceeded 1 million (*Pravda*, 30 October 1958).

[55] Assuming that the average labour to capital ratio is to be about the same in the east as in the west. The second text table on p. 18 shows that it is slightly lower in the east than in the west (though, as explained, it may not be if measured in other terms). However, some of the eastern industries which are to expand their share of the country's output under the Plan (see Table 10) — coal, timber, textiles, boot-making and construction — have a higher ratio than engineering (where the western share is likely to expand) but others such as ferrous metallurgy, cement and electricity have a lower ratio (as shown by the proportion of wage bills to depreciation charges in *Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 171, 650, and *Promyshlennost SSSR*, pp. 245, 276, 322).

[56] In proposing this law Mr. Khrushchev stated that the armed forces had been reduced by 2,140,000 men between 1955 and 1958. In the subsequent debate in the Supreme Soviet, General F. Golikov said that 130,000 demobilized men had volunteered to work in agricultural and industrial development areas (*Pravda*, 15 and 16 January 1960).

[57] A point made by Mr. Khrushchev in his speech to the Central Committee on agricultural questions (*Pravda*, 29 December 1959).

[58] N. Kokosov (*Voprosy ekonomiki*, No. 8, 1959, p. 27, and No. 12, 1959, p. 160). Automation, which as noted above (section 1) is a special feature of the Plan, could with advantage save social capital in the eastern regions by depressing labour needs. See further I. Krutikov, *ibid.*

[59] Ya. Chadaev, *Novy etap ekonomicheskogo razvitiya RSFSR*, Moscow 1959, p. 164.

[60] G. Orlov, Deputy Chairman of the RSFSR Gosplan (formerly USSR Minister of the Timber Industry), reported by Tass agency, 22 November 1958.

The increased use of the soil endowment of the eastern regions, which as shown in Table 4 was a major feature of the past few years, has been accompanied by a somewhat similar (though much faster rising) trend so far as subsoil wealth is concerned. The organ of the USSR Ministry of Geology and Soil Conservation has recently commented " Concerning the reason for the inadequate efficiency of geological prospecting work, it is impossible not to dwell upon the underestimation of the role of geological survey and exploration which took place particularly in the period 1949-1953. It is sufficient to recall that in that period the share of total allocations for this most important stage of revealing mineral resources was only a few per cent, at a time when the bulk of funds was devoted to surveys of a predominantly detailed nature. As a result of the under-appreciation of geological survey and exploratory research, the exploration front was sharply narrowed and the numbers of long-term deposits revealed and fields prepared for detailed survey were diminished. "[65] Subsequently a full range of exploratory surveys has been resumed and there was a record number of field expeditions (over 5,000) in 1959.[66] The discoveries of the past three years or so (which, as noted above, were one of the reasons for the replacement of the Sixth Five-year Plan by the Seven-year Plan) have in fact been immense and, with the major exception of Kursk-Belgorod iron ore, are virtually all in the eastern regions.

TABLE 6

Regional location of industrial fixed assets, 1925 to 1958

Percentages of total on 1 January of each year for national territory at that date [a]

	1925	1930	1951	1956	1958
European RSFSR . . .	63.9	59.2	38.7	37.3	..
North	0.7	0.8	2.1	1.9	..
North-west	15.8	14.9	6.7	6.2	..
Centre	38.0	33.7	20.7	18.8	..
Volga	4.5	4.4	4.9	5.4	..
North Caucasus	4.9	5.4	4.3	5.0	..
Ukrainian SSR	21.9	23.0	20.1	20.2	20.2
Moldavian SSR			0.2	0.4	0.4
Azerbaidzhan SSR . . .	5.2	6.7	2.9	3.1	2.8
Georgian SSR	0.3	0.7	1.5	1.8	1.7
Armenian SSR	0.1	0.2	0.7	0.7	0.7
Byelorussian SSR	0.7	1.0	1.4	1.6	1.6
Latvian SSR	..	..	0.9	0.8	0.8
Estonian SSR	..	..	0.7	0.7	0.6
Lithuanian SSR	..	..	0.4	0.5	0.5
Total western regions .	*92.1*	*90.8*	*67.5*	*67.1*	..
Asian RSFSR	6.9	7.4	26.3	26.5	..
Urals	4.9	5.1	14.0	13.8	..
West Siberia	0.9	1.2	5.4	5.2	..
East Siberia	0.4	0.4	3.3	3.9	..
Far East	0.7	0.7	3.6	3.6	..
Kazakh SSR	0.4	0.7	3.0	3.4	3.3
Uzbek SSR	0.5	0.8	2.0	1.7	1.6
Turkmen SSR	0.1	0.2	0.5	0.6	0.6
Kirgiz SSR	—	0.1	0.4	0.4	0.4
Tadzhik SSR	—	0.1	0.3	0.3	0.3
Total eastern regions . .	*7.9*	*9.3*	*32.5*	*32.9*	..
USSR (Index 1925 = 1)[b]	1.0	1.6	17.9	24.9	30.6

Sources and definitions : See Appendix B.

[a] That is, excluding the Baltic Republics and western parts of the Ukraine, Byelorussia and Moldavia in 1925 and 1930. The effect thereof on intertemporal comparability is slight (in 1958 the Baltic Republics aggregated 1.9 per cent of the total in present territory and the effect of the incorporation of other regions was insignificant).

[b] The index is not fully comparable between 1925-1930 and 1951-1958 (see Appendix B).

The Seven-year Plan Directives quote six main elements in the exploitation of eastern-regional resources: the creation of a " third ferrous metallurgical base " to use Eastern Siberian and Kazakh ores, increased mining of non-ferrous metals in Kazakhstan, Central Asia, the Urals and Transbaikalia, thermo-electricity generation in Siberia to use open-cast coal, the piping of natural gas from the North Urals and Uzbekistan to industry in the Southern Urals, expansion of a chemicals industry in Central Asia and the increased felling of Siberian timber.

The Regional Distribution of Capital

Table 6 shows about one-third of industrial assets to have been located in eastern regions in 1956.[67] The

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[61] Another factor tending to raise manpower needs in the east is increased railway construction. This is being offset by strenuous efforts to mechanize this activity, 63 per cent of which was manual in 1959 (*Gudok*, 16 January 1960).

[62] *Pravda*, 29 December 1959.

[63] D. Polyansky, *Pravda*, 23 December 1958.

[64] N. Belaev, *ibid.*

[65] Editorial, *Razvedka i okhrana nedr*, No. 11, 1959, p. 5.

[66] *Ibid.*, p. 1. A tectonic map of the Soviet Union on a 1 : 5,000,000 scale was published in 1957 and the USSR Geological Research Institute is to publish one on a 1 : 2,500,000 scale in 1960 (*Soviet News*, 10 February 1959).

[67] For a critique of an alternative figure of one-quarter by Oznobin, *Planovoe khozyaistvo*, No. 7, 1959, p. 65, see Appendix B, (Sources and methods for Table 6).

TABLE 7

Gross state and co-operative capital formation in Union Republics, 1918 to 1959-1965 Plan

Percentages of that part of total outlay shown in pre-war territory by Union Republics

	Russian Federation	Ukrainian and Moldavian Republics	Byelorussian SSR	Trans-caucasian Republics	Kazakh SSR	Central Asian Republics	Total pre-war territory	Baltic Republics	Undistributed residual
1918-1928[a]	66.6	18.3	2.0	3.8	5.8	3.5	100.0	..	—
1928[a]-1932 . . .	67.9	18.6	2.0	4.5	3.2	3.8	100.0	..	—
1933-1937	69.4	17.0	1.3	5.2	3.4	3.7	100.0	..	—
1937-1941[b] . . .	70.2	14.7	2.4	5.3	3.5	3.9	100.0	0.8[c]	—
1941[b]-1945 . . .	74.0	12.6	1.0	3.6	4.8	4.0	100.0	0.7	—
1945-1950	64.4	20.2	2.3	5.4	3.8	3.9	100.0	2.4	0.4
1951-1955	67.8	16.7	1.9	4.7	4.9	4.0	100.0	2.1	0.2
1956-1958	67.4	17.0	2.0	3.4	6.3	3.9	100.0	2.1	0.01
1959-1965 Plan . .	65.5	15.7	2.2	3.9	8.0	4.8	100.0	2.1	30.6

Sources: Narodnoe khozyaistvo SSSR v 1958 godu, pp. 626-627; and Seven-year Plan Directives.

NOTE. — Outlays are at 1955 prices on standardized estimate-tariffs introduced in 1956 and exclude outlays on project-drafting and prospecting and by collective farms and households. The 1959-1965 data relate only to outlays financed from centrally planned funds, and, as will be noted, a much smaller proportion is allocated by Union Republic; in the case of the Russian Federation and the Kazakh SSR the mid-point of the planned range was used. For the Ukrainian SSR the planned range in the directives was assumed to have been superseded by a single target announced in *Pravda*, 18 January 1959.

[a] Last quarter excluded from the one and included in the other.

[b] Second half excluded from the one and included in the other.

[c] Mid-1940 to mid-1941 only.

data in the table are conceptually comparable although, by reason of the valuation procedures used (original installation costs without depreciation, except for pre-1925 assets which are included at replacement values of that year) they cannot be assumed to reflect properly the shift to the eastern regions. This shift was probably less than suggested by the capital inventories between 1925 and 1951 and greater between 1951 and 1958.

There are two problems involved, of prices and of depreciation. From 1925 until 1949 capital-good prices were rising fairly sharply; hence the inventory share would be inflated in areas where fixed assets were being more rapidly accumulated (i.e. in the eastern regions). From 1950 onwards capital-goods prices declined; hence the upward statistical bias in original-cost valuation would begin to be transferred to the more slowly-expanding regions.[68] Secondly, because no allowance was made for depreciation, assets were retained in the running inventory at unchanged values until bodily withdrawn. The undepreciated inventory value of a region enjoying more rapid investment than another would thus exceed a true measure of productive capacity[69] by a bigger margin so long as the period under consideration was less than the average life of an asset (some 30 years). Since the acceleration of investment may be dated from the First Five-year Plan, scrapping would begin importantly to affect capital statistics around 1950. Furthermore, post-war rehabilitation in the western regions has the same effect on asset age-distribution (and thus on undepreciated valuations) as the start of industrialization, until the median age exceeds, say, 30 years; thus the median age of assets in the west is likely to fall further short of mean asset life than in the east.

It may therefore be that the average annual gain by the east of 1.1 per cent in its share of assets over the two decades to 1950 somewhat overstates the shift of productive capacity, while that of 0.1 per cent in the following quinquennium understates it. Even so it is fair to conclude that, as with the labour force, the peak period of redistribution of industrial capital was that of the pre-war five-year plans and the war.[70]

To compare the location pattern of industrial capital stock with that of new investment (Table 7), the analysis must be by Union-Republic since data were not available for the zones of the Russian Federation.[71] Properly comparable data have not been published on a regional basis, either for overall capital stock or for new investment in industry. The share of industry in new investment in the Russian Federation (the only Republic for which such statistics are available) is, however, so constant and close to the all-Union average that global and industrial coverages may be taken as interchangeable.

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[68] The effect must depend on the relative original prices and quantities of equipment scrapped and installed in each year. Whereas the original costs of the retired assets would tend to be below the prices of post-1949 installations, those assets would be very few in relation to the new instrument.

[69] A true measure of productive capacity must be less than, but close to, undepreciated replacement value. Values written down under linear amortization understate true capacity increasingly and in direct proportion to asset life.

[70] There was some retrocession of evacuated equipment towards the end of and just after the war. As a result the gross output of industry in the Urals, which rose 3.6 times during the war, was in 1950 only 2.9 times the 1940 level. Siberian output rose 2.8 times during the war and was at about the same level in 1950. There was also retrocession within the western region as the war-time 3.4-fold increase in Volga Zone output shows when compared with the 2.6-fold increase shown between 1940 and 1950. (War-time data from Ya. Chadaev, *op. cit.*, p. 16; 1950 data from Table 9.)

Industrial percentage share of new state investment

	RSFSR	*USSR*
1928-1932 . . .	42.7	42.6
1933-1937 . . .	42.4	41.8
1938-1941 . . .	41.4	40.9
1941-1945 . . .	54.8	54.0
1946-1950 . . .	49.4	48.9
1951-1955 . . .	51.5	51.1

Sources : RSFSR za 40 let, statistichesky sbornik, p. 86; *Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 624-625.

The following figures, which exclude the Baltic States to ensure pre-war comparability (capital stock in the other territories incorporated during 1939-1945 cannot have significantly altered the pattern), show that the share of the Russian Federation has remained remarkably constant, with the stock gain of the Asian Republics having been made in effect at the expense of the European Republics. The big east-west shift shown in Table 6 was thus essentially one of movement from the European to the Asian part of the Russian Federation.

Percentage of industrial capital stock (excluding Baltic Republics)

	Russian Federation	*Union-Republics*	
		European	*Asian*
1925	70.8	28.2	1.0
1930	66.6	31.6	1.9
1951	66.3	27.3	6.3
1956	65.1	28.4	6.5
1958	65.7	27.9	6.3

Source : Table 6.

A comparison of these figures with those in Table 7 shows that since the inception of the First Five-year Plan the share of new capital formation has consistently been above the share of industrial capital stock in the Russian Federation (the immediate post-war quinquennium excepted) and the Asian Union-Republics, but below it in the European Union-Republics. This precise pattern would not appear to hold for the Seven-year Plan (subject to the uncertainty of coverage of its figures, cf. p. 18), for the Russian Federation's share in state appropriations is to be slightly below its current proportion of industrial fixed assets. Allocations to the European Republics falling further below their present relative holdings, the advantage is enjoyed by the Asian Republics and above all by Kazakhstan.

TABLE 8

Distribution of collective-farm gross capital formation by Union Republic, 1946 to 1958

	Percentages of total outlay excluding the Baltic Republics			Capital stock 1 Jan. 1959
	1946-1950	1951-1955	1956-1958	
Russian Federation	53.6	50.7	50.8	48.2
Ukrainian and Moldavian SSRs	18.8	25.4	26.1	26.4
Byelorussian SSR	2.2	3.6	3.8	3.7
Transcaucasian Republics . .	7.4	5.2	4.2	5.8
Kazakh SSR	4.6	4.3	4.7	5.4
Central Asian Republics . . .	13.3	10.7	10.3	10.5
Total (excluding Baltic Republics)	100.0	100.0	100.0	100.0
Baltic Republics	0.4	3.3	3.4	3.4

Source : Narodnoe khozyaistvo SSSR v 1958 godu, pp. 502, 631.

These conclusions are not vitiated if outlays by the other significant investor — the collective farms — are considered (private outlays not being published). Over the entire past period covered by Table 7 their capital expenditure added 9.8 per cent to the funds there distributed and, as Table 8 illustrates, showed a not dissimilar regional pattern. The regional origin of post-war farm investment showed higher shares in the European Republics than investment by state and co-operative agencies. In Central Asia the share of collective farm outlay was also higher than that of the rest, but was on balance less in Kazakhstan (where however, much of the farm investment was on state, rather than collective, farms) and was also less in the Russian Federation. Since 60 per cent of collective-farm capital stock has been added in the past eight years,[72] the coincidence of regional patterns of recent capital formation and of present capital stock (see Table 8) implies that the picture presented by Tables 6 and 7 would not be much altered by including the collective-farm sector.

The one other indicator of regional capital-formation (subject to the *caveat* in the following paragraph) provided in the Seven-year Plan Directives is that " over 40 per cent of the total capital investment for 1959-1965 will be allocated to the eastern regions ".

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[71] The regional breakdowns in *Narodnoe khozyaistvo RSFSR* omitted such data, and the few *oblast*, ASSR and *krai* statistical abstracts which provided investment values aggregated, in 1955, just 7 per cent of the outlay in the Federation in that year. Even fewer abstracts quoted 1940 data (1.9 per cent of outlay in the Federation).

[72] The aggregate of farms' ' indivisible funds ' stood at 50.6 billion roubles on 1 January 1951 and 123.1 billion on 1 January 1959. As in Table 6, these values are at original cost.

The superseded Sixth Five-year Plan envisaged that " about half " of total investment should be in the eastern regions, a sum which would be " more than double " that of the Fifth Five-year Plan period.[73] Although the Seven-year Plan Directives define the " east " as excluding the Volga Zone and the report on the Sixth Five-year Plan was less explicit, the latter's references to individual " eastern " zones were exclusively to the Urals, Siberia, Kazakhstan and Central Asia.[74] It is fair to conclude that the two plan statements refer to the same area, as well as to the same investing sectors (i.e. state agencies financed from centrally planned funds).[75] Converted to a comparable building-estimate basis, annual capital outlays in the eastern regions were less than 51 billion roubles in 1951-1955, were planned at less than 103 billions in 1956-1960 and are projected at more than 111 billions in 1959-1965. These figures compare with other relevant index numbers (1951-1955 = 100) as follows.

Annual averages

	1956-1958 Actual	*Sixth Five-year Plan*	*Seven-year Plan*
National income [a]	148	164	217
Gross state investment (from planned funds)	149	168	226
of which : In eastern regions	..	<200	>218

Sources : Plan Directives and for 1951-1958, statistical yearbooks.

NOTE. — None of the goals represents precise targets since both sets of directives quoted are only ranges, approximations or minima.

[a] Domestic material product.

Compared thus with the preceding five years, the Sixth Five-year Plan promised a greater share of domestic material product for eastern-district investment, while it kept almost constant the overall ratio of (state) investment to output. The Seven-year Plan reverses these roles and appears to offer a greater share of material resources for investment as a whole, but an unchanged share for the eastern regions.[76]

This conclusion must however be regarded with some reserve, since its keystone is an ill-defined figure. The " over 40 per cent of total investment " may refer not to all centrally planned state investment but to the part thereof allocated by Union-Republic (viz. to some 1,500 billion roubles out of a total centrally planned outlay of 1,940-1,970 billion roubles out of an investment from all sources of approaching 3,000 billion roubles). The margin between 40 per cent of the republican aggregate and the appropriations for Asian Union-Republics — i.e. the implied allotment to the eastern part of the Russian Federation — coincides closely with the actual allocation for those regions.[77] This identity may imply either that the statement in the Directives related only to the aggregate of specified republican allocations or that the distribution of the planned residual is broadly the same as for the territorial aggregate.

The Effects of Factor Relocation on Output

The absence from the Directives of any overall indicator of the expected contribution of the eastern regions to total output lends substance to the view that no firm commitment on location underlay the Plan as presented to the XXI Party Congress. The dilemma facing the Seven-year Plan is that, while the bulk of the country's natural endowment is in the eastern regions, industrial production there has been shown to require more capital and more labour per rouble of gross output.

Total output, employment and capital stock of eastern-region industry

as percentages of the all-Union total

	1930	*1940*	*1955*	*1958*
Gross industrial output	9	15	27	26
Industrial productive employment	11	20	30	29
Productive fixed assets in industry	9	..	33	..

Sources and methods : See Appendix B.

During the period of industrialization in the eastern regions the mean industrial capital/gross output ratio (in current rouble values) has increased while that in the

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[73] *Pravda*, 22 February 1956.

[74] As late as the preceding July (at the Plenum of the Party Central Committee which relaunched the eastern development drive) the term " eastern regions " still included the Volga Zone (cf. Mr. Bulganin's report to that Plenum, *Pravda*, 17 July 1955).

[75] This conclusion may be drawn from a comparison of the quinquennial capital outlays cited by Mr. Bulganin (*Pravda*, 22 February 1956) with the figures published by the Central Statistical Office. The following five-year aggregates are in billions of roubles at 1 July 1955 prices and exclude drafting and survey costs but, as noted, use variant building tariffs.

	First	*Second*	*Fourth*	*Fifth*
(a) Cited by Bulganin	58	132.5	311	594
(b) All state and co-operative agencies	61.6	141.4	326.5	625.3(c)
(d) All state and co-operative agencies, but at 1956 building tariffs	64.9	147.6	338.7	654.4
(e) State agencies, from centrally planned funds at 1956 building tariffs	61.4	138.4	321.5	615.6

(a) Bulganin, *loc. cit.* Sixth Five-year Plan figure on this basis: 990.

(b) *Narodnoe khozyaistvo SSSR*, 1956, pp. 158-159.

(c) Corrected to 629.7 in *Narodnoe khozyaistvo SSSR v 1956 godu*, 1957, pp. 172-173.

(d) *Dostizhenia sovetskoi vlasti za 40 let v tsifrakh*, 1957, p. 207.

(e) *Narodnoe khozyaistvo SSSR v 1958 godu*, 1959, pp. 82-83, also republishing (d). Seven-year Plan figure on this basis: 1,940-1,970.

It will be observed that the figures in line (a) bear the same relation to those in (b) as the figures in (e) bear to those in (d). A comparable building estimate basis may be derived by applying the coefficient of 1.0465 shown between lines (b) and (d) for the Fifth Five-year Plan.

[76] In the absence of precise eastern-region investment data for 1956-1958, this point may not be made conclusively; but Table 7 showed that variation between 1951-1955 and 1956-1958 was unlikely to have been significant.

[77] 40 per cent of the sum of Republican allocations (1,504 billion roubles) is 602 billion roubles, of which 188 billions to the Central Asian Republics (data underlying Table 7). The residual, representing the eastern RSFSR, of 414 billion roubles, is 42.9 per cent of the total RSFSR specific allocation. Ya. Chadaev (Deputy Chairman of the RSFSR Council of Ministers until June 1957) has written that " over 40 per cent " of the 954-974 billion roubles earmarked for the Russian Federation is to be in the Urals, Siberia and Far East (*op. cit.*, p. 168).

TABLE 9

Growth of gross industrial output by region, 1913 to 1965 Plan

Index numbers

	1940	1950	1956	1956	1958	1965 Plan
	1913 = 1	*1940 = 100*		*1950 = 100*		*1958 = 100*
European RSFSR :						
North	7.1	183	314	171	205	..
North-west	11	128	271	212	250	..
Centre	12	155	306	197	233	..
Volga	9.1	259	546	211	258	..
North Caucasus	13	116	236	203	245	..
Ukrainian SSR	7.3	115	247	215	263	177
Moldavian SSR	..	206	564	274	367	220
Azerbaidzhan SSR	5.9	139	214	154	177	190
Georgian SSR	10.0	156	286	183	221	<175
Armenian SSR	8.7	249	517	208	253	220
Byelorussian SSR	8.1	115	266	231	294	180
Latvian SSR	..	303	668	221	288	>160
Estonian SSR	..	342	751	220	271	180
Lithuanian SSR	..	191	571	300	419	180
Asian RSFSR:						
Urals	14	292	558	191	226	..
West Siberia	29	314	627	200	239	230
East Siberia	14	198	373	189	239	280
Far East	18	163	280	171	206	<200
Kazakh SSR	7.9	231	459	199	244	270
Uzbek SSR	4.7	183	302	165	192	180
Turkmen SSR	6.7	143	259	181	208	200
Kirgiz SSR	9.9	215	424	197	236	220
Tadzhik SSR	8.8	151	305	202	238	>180
TOTAL USSR	8.5	173	354	205	248	180

Sources : 1940: *Dostizhenia sovetskoi vlasti za 40 let v tsifrakh*, pp. 120-139; 1950-1958 and 1965 Plan, *Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 54-55, 60, 141, 324-341, *Narodnoe khozyaistvo RSFSR*, pp. 11-39; *Narodnoe khozyaistvo RSFSR v 1958 godu*, pp. 60, 65; 1965 targets for Siberia from *Planovoe khozyaistvo*, No. 12, 1959, p. 68; and for Far East from *Ogonyek'* No. 44, 1959, p. 7.

NOTE. — All 1965 targets are approximate. 1940 data for RSFSR zones are for large-scale industry only; for the Federation as a whole this index stood at 12 in 1940, when that for all industry was 8.7.

western regions has fallen (for the country as a whole both fixed capital and gross output in industry rose by 1958 to approximately 28 times the 1928 level). It is impossible, however, to assess how far this change is a real one (i.e. in terms of capital and net output in constant prices) and how far it is a consequence of the statistical measurements used. Gross output in the eastern regions undoubtedly exhibits a lower degree of duplication than in the west, because it comprises more extractive and basic industries. For the same reason the bias in the old "1926/27 prices" (the weights for the output index until 1950) would cause the eastern region series to grow more slowly than the western series which embraced more engineering and other commodities not priced in 1926/27.[78] Moreover, as already observed, the capital inventory until at least 1950 overstates the rise in productive capacity in the eastern regions. It is quite possible that, on average, no more fixed assets are required to produce a rouble of net output than in the west, and in some basic industries it is clear that less is needed. In coal mining the commercial strata are attainable with less investment — frequently by open-cast stripping:

Capital and labour inputs in selected coal-fields

	1955 output as percentage of USSR	*Roubles invested per ton*		*Tons per worker*	
	(a)	(a)	(b)	(a)	(b)
Selected western coalfields :					
Donets (c)	43.4	337	369	44	40
Moscow (c)	12.6	290	744	57	22
Selected eastern coalfields :					
Kuznets (c)	16.3	234	249	60	56
Kuznets (d)	1.8	152	177	249	214
Karaganda (c)	5.9	205	244	88	74
Ekibastuz (d)	2.7	66	106	375	233
Irkutsk (d)	1.9	86	117	407	301
Kansk (d)	0.7	44	85	933	485
Minusinsk (d)	0.4	132	167	310	245

Sources : See Appendix B.

(a) Tons.

(b) Tons of standard calorific equivalent.

(c) Deep-mined.

(d) Open-cast.

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[78] Cf. SURVEY for 1951, pp. 129-131.

TABLE 10

Industrial output originating in the eastern regions of the Soviet Union, 1940 to 1965 Plan

Commodity	Percentage of total output					1965 Plan in physical units [a]	Percentage of increment between			
	1940	1950	1955	1958	1965 Plan		1940 and 1950	1950 and 1955	1955 and 1965 [b]	1958 and 1965 [b]
Coal	35.9	47.0	46.9	46.7	50	300-306	66	59	56	65
Crude oil	9.0 *	..	..	28.5 [c]	30	69-72	..	..	..	31
Electricity	22.4	37.8	37.3	..	46	230-239	55	37	50	..
Pig iron	28.5	47.5	42.9	..	44	28.6-30.8	112	37	45	..
Crude steel	32.1	52.7	47.2	..	48	41.3-43.7	93	39	49	..
Rolled steel	32.2	52.2	48.0	..	49	31.8-34.3	85	42	50	..
Refined copper	..	..	..	..	88	..	..	..	..	..
Aluminium	..	..	..	..	71	..	..	..	..	..
Cement	19.5	25.7	27.8	32.1	42	31.5-34.0	33	29	48	49
Window glass	14.3	12.4	21.4	20.8	39	85.8	10	52	54	67
Soft roofing	2.2	5.5	7.2	8	26	338	8	10	38	44
Lumber hauled	39.7	41.0	43.5	43.9 [c]	[d]	..	57	53	..	..
Industrial timber	38.8	40.1	44.0	44.7 [c]	52	143-146	44	56	..	96 [c]
Sawnwood	36.6	33.9	38.4	39.9 [c]	45	41.4-42.7	27	47	..	71 [c]
Cotton fabrics	3.8	7.2	7.7	8.3	11.4	900	[e]	9	24	21
Wool fabrics	2.7	4.9	4.8	4.6	21.5	108	12	5	39	48
Silk fabrics	8.2	12.3	7.3	6.7	44.6	662	19	6	65	96
Knitwear	6.2	14.4	12.5	13	27	254	118	11	39	42
Hosiery	4.3	9.1	7.9	7.9	26 *	320 *	[e]	5	54	69
Leather footwear	10.5	17.1	19.2	19.4	23	118	[e]	25	27	32
Fish catch	39.3	41.0	33.0	38.5 [c]	30 [f]	1.4 [f]	48	19	..	..

Sources : See Appendix B.

[a] Million tons except for electricity (million MWh), glass and soft roofing (million square metres), all wood (million cubic metres) fabrics (million linear metres), and hosiery and footwear (million pairs).

[b] Mid-point of range where published in this form.

[c] 1957.

[d] Siberia and Far East: 34 (26 per cent in 1957 and 1958).

[e] Countrywide output fell while eastern output increased.

[f] Far East only (24.6 and 29 per cent in 1940 and 1958 respectively).

Although the western coal-fields covered in the above table comprise nearly all the western-region output, while the eastern fields are not a comprehensive list, the conclusion may be drawn that capital invested per ton of standard calorific content in the east is half that in the west.[79] The concentration of some other — notably metallurgical — production into larger (or otherwise more efficient) units in the east also shows a more intensive use of capital.[80]

Despite the apparent eastern advantage in labour productivity in coal mining, output per man in industry as a whole would seem to be lower. In the conditions of labour shortage discussed above, it may be imagined that a firm decision on output targets in eastern-region industry has been deferred until the extent of military demobilization could be chosen.

But if no indication is available of total industrial output by region, some information has been published on individual products (see Table 10). Over half the increment forecast in the Seven-year Plan is to come from the eastern regions in the case of coal, cement and window glass, together with nearly all the silk fabrics and two-thirds of the hosiery. The eastern shares of the planned increases in iron and steel, wool fabrics and soft roofing (tiles are very little used in the eastern RSFSR) are also substantial. Between 1940 and 1950 the eastern contribution to the increment of output from the basic industries was very large, since by 1950 the Ukrainian metal and coal centres had not been fully restored after wartime devastation, but was much smaller — except for timber and glass — during the Fifth Five-year Plan.

Indications of the planned size of the eastern-area basic industry are that the 1965 eastern target for coal is as much as the whole USSR produced in 1952, for ferrous metals as much as in 1954, for crude oil as much as in 1955 and for electricity as much as in 1958. The expansion of iron and steel output will include the creation of a "third metallurgical base", by the construction of new combines in Kemorovo *Oblast* (western Siberia) and at Taishet (eastern Siberia). Within a decade this "third base" should be producing 15-20 million tons of pig iron. There is still some debate on the scope for developing electro-smelting of pig iron to use the immense resources of the Bratsk hydroelectric station — the world's biggest — now under construction.[81] The proximity of bauxite, lead, zinc and other deposits in conjunction with this electric power underwrite the development of non-ferrous metallurgy; of the two figures available in Table 10, Kazakhstan will supply the copper and the eastern part of the Russian Federation the aluminium (the latter industry using one-fifth of Siberian electricity output in 1965).

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[79] According to the table the 56 per cent of coal mined in the west was produced at 453 roubles of capital per ton and the 30 per cent mined in the east was produced at 217 roubles.

[80] Up to 1955 the performances of the best eastern iron and steel works were better than most of the western works. One of the reasons for such a difference, in particular in the blast-furnace field, was that the iron ore preparation in the western works was at a lower level than in the most modern eastern works. However, during the last four or five years a very big programme of enrichment of the Krivoi Rog iron ores, as well as the sintering of all ore fines, has been undertaken in the western part of the country. A still larger programme is included in the Seven-year Plan. Therefore by now the indices of performance in the western works are nearly comparable to those of the east. One works, for example, Cheropovets, is the best in the world.

The "eastern" target for oil is a somewhat artificial figure since the continental dividing line cuts through the rich Volga-Urals oilfield, the main Soviet producer and one of the richest deposits of the world. By 1965, the Russian Federation will produce 82.5 per cent of Soviet oil (against 77.7 per cent in 1958), mostly from the Tatar and Bashkir ASSRs and Kuibyshev *Oblast*, and only 9.2 per cent will come from Azerbaidzhan, whose Baku field produced 71.4 per cent of the total 1940 output. By 1965, however, only 66.2 per cent of the drilling will be in the Russian Federation and 8.7 per cent will be in the Ukraine (which will then be producing only 2.5 per cent of crude). Drilling shares — an indication of output trends beyond 1965 — will also be greater than those of production in Kazakhstan and Central Asia.[82] The trans-Siberian pipeline already mentioned will feed new refineries in Krasnoyarsk and Irkutsk.

Just half the increment in cement output is to be made in the east and will bring the latter's share to between 41 and 42 per cent, representing a quintupling of output in ten years. The eastern share of other building materials will also expand (notably glass and timber),[83] in order to reduce the burden of present long-distance shipments: in 1958, 5 million tons of building materials, in central supply plans only, were shipped into the eastern regions.[84] It will, however, be observed from Table 10 that the share of the eastern regions in timber-haulage will continue to be well ahead of their share in sawing. Some part of this margin is attributable to the heavier use of wood for fuel in the east (though the proportion for industrial timber is close to that for haulage) but most arises from the inadequacy of sawmill capacity in the new forest-exploitation zones.[85]

The major feature of the chemicals industry — the most dynamic sector of the Plan — will be development of petro-chemicals on the basis of zones (running from the Urals to the Caucasus) cutting across the conventional east-west "boundary". The *sovnarkhozy* with the biggest increments of chemicals output are nearly all within this broad area: Bashkiria and Perm in the Urals zone, Tataria, Kuibyshev, Saratov and Stalingrad in the Volga Zone, Lugansk in the eastern Ukraine, Checheno-Ingushia in the North Caucasus and Azerbaidzhan in the Transcaucasus. Outside this belt, the three other *sovnarkhozy* which are in the centre of the development plan are all in major coal basins (Tula, in the European Centre, and Irkutsk and Kemerovo, in east and west Siberia respectively).

Energy-intensive processes (synthetic rubber, man-made fibres and various other products of organic synthesis) will be concentrated in the Urals, while chemical fertilizers and plastics will be more dispersed within this broad area. Provided that the mineral deposits can be opened up satisfactorily, processes based on phosphates, pyrites and potash will develop in Siberia, on borates and soda in the European centre, and on phosphates and borates in the Ukraine and North Caucasus.[86] A number of studies on the scope for creating a chemicals industry in eastern Siberia have been published, including one before the Directives appeared, recommending that — despite distance from consuming centres, limited labour resources, and the absence of local gas supplies and of external economies — the production of polymers, nitrogenous fertilizers and electro-chemicals should be developed in Siberia.[87] The Council of the Academy of Sciences for the Study of Productive Resources[88] saw in Chita *Oblast* deposits available for sulphuric acid and fertilizers, and the Siberian Branch of the Academy of Sciences[89] envisaged the exploitation of peat bogs for fertilizers, phenol, gas and other chemicals. A conference on eastern Siberia held in December 1958 called for planning and survey work in this field to be carried out in 1959/60,[90] and it would hence appear that the chemicals profile of the zone is still to be determined.

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[81] The proposals for electro-smelting were formulated by A. Probst *et al.*, *Perspektivy razvitiya vyplavki chuguna v elektricheskikh pechakh na Vostoke SSSR*, Moscow 1958. However, V. Andreev (*Planovoe khozyaistvo*, No. 9, 1959, p. 92) states that the cost figures used for the calculations are wrong and that smelting in blast furnaces would be as cheap.

[82] These data are from *Neftyanoe khozyaistvo*, No. 9, 1959, pp. 5-7.

[83] According to *Stroitelnye materialy*, No. 10, 1959, pp. 1-2, 20 per cent of brick output originated in the eastern regions in 1958. The cost of shipping bricks into Uzbekistan is as much as their ex-works price and meant that one square metre of dwelling built in that Republic cost 2,600-2,900 roubles in 1958 against a countrywide average of 1,540 roubles envisaged for the Seven-year Plan (*Kommunist*, No. 9, 1959, p. 28).

[84] *Stroitelnye materialy*, *loc. cit.* On the same point see Sh. Rozenfeld (*Voprosy ekonomiki*, No. 12, 1959, p. 159), on the need for a full range of building materials in each large zone and, with special reference to cement, L. Merkin (*Planovoe khozyaistvo*, No. 6, 1953, pp. 89-92).

[85] I. Poluiko (Karelian Branch of the USSR Academy of Sciences) complained of this disparity not only in his own Republic but also in other regions of the north at the October 1959 meeting of the Institute of Economics on space economy, *Voprosy ekonomiki*, No. 12, 1959, p. 159.

[86] Speech of V. Fedorov, Chairman of the State Committee on Chemicals, to the XXI Congress; Chadaev, *op. cit.* p. 129.

[87] N. Shokin, *Planovoe khozyaistvo*, No. 8, 1958, pp. 50-51.

[88] N. Gerasimov, *Voprosy ekonomiki*, No. 4, 1959, p. 155.

Certainly, in the basic industries mineral endowment and economies of scale and weight-consumption in connexion with mineral processing would seem to provide eastern advantage. To some extent the growing volume of Soviet foreign trade — it may as much as double during the Seven-year Plan (see Chapter III, section 5) — could counteract this advantage, since many of the goods scheduled for most rapid expansion (such as pig iron and iron ore) have high weight/value ratios and over half of inward and outward foreign-trade shipments are by rail.[91]

Outside the primary and basic industries, planned regional shares are only available for textiles and footwear (see Table 10), plans for engineering going no further than a statement that the Siberian share in output will increase.[92] In the light industries development before the five-year plans had been highly localized, despite the diffusion of their agricultural raw materials. Given the pre-war policy of a much below average rate of growth in these branches, there was a relatively smaller degree of location choice in the siting of new enterprises, but the cotton industry provided an instance of depreciation charges accumulated in the western regions being spent in the east.[93] Such transfers could only slowly alter the pattern of output and by 1958, when 90 per cent of the cotton and 50 per cent of the wool was grown in the eastern regions, 8 per cent and 5 per cent respectively of fabric from these materials was woven there.

TABLE 11

Regional location of textile weaving 1958 and 1965 Plan

Percentage of total production

	Cotton		Wool		Silk	
	1958	1965 Plan	1958	1965 Plan	1958	1965 Plan
Centre	78.85	67.3	66.13	49.03	75.93	31.5
Volga	0.56	4.87	4.53	. .	—	. .
North Caucasus .	0.27	1.16	3.93	. .	—	. .
Ukraine	1.33	2.75	5.22	. .	4.29	6.63
Byelorussia . . .	0.06	0.80	1.42	. .	0.10	. .
Azerbaidzhan . .	1.69	2.04	0.60	1.19	0.82	. .
Other	8.89	10.0	13.53	. .	12.17	. .
Western regions	*91.65*	*88.9*	*95.36*	*78.5*	*93.31*	*55.4*
Urals	0.23	. .	1.69	5.33	0.04	11.03
West Siberia. . .	1.32	3.25	0.79	3.01	—	. .
East Siberia . . .	1.42	. .	0.40	4.70	0.76	13.12
Far East	0.11	. .	—	—	—	. .
Central Asia and Kazakhstan . .	5.27	7.18	1.72	8.52	5.89	13.16
Eastern regions	*8.35*	*11.4*	*4.60*	*21.56*	*6.69*	*44.6*

Sources : Zonal data from Chesnokov, *Planovoe khozyaistvo*, No. 5, 1959, p. 59 and *Narodnoe khozyaistvo RSFSR v 1958 godu*, p. 145; regional totals from Table 10.

So far as raw cotton is concerned the production picture is to be unchanged,[94] but rather than locate all the new cotton mills in the plantation areas, it is planned generally to disperse the industry. In the Central Zone, where much of the capacity is now concentrated, the expansion is to be in a remote part of that Zone (the Chuvash ASSR). New plants are planned in Western Siberia, the Northern Caucasus, Byelorussia and the Ukraine as well as in the producing republics of Central Asia and the Transcaucasus. In elaboration of this policy, an economist on the staff of the Cotton-Spinning Research Institute has stated that the expansion of capacity in the plantation zones should go only to the point of satisfying local demand and that the rest should be close to large consumption centres.[95] A much stronger policy of diffusion is planned for other textiles and, as Table 11 shows, the share of the Central Regions in output will be reduced to less than half for wool and silk (mostly artificial). Nearly every eastern zone seems to share in the rapid expansion. A linen industry is to be created in the Ukraine: hitherto all its flax fibre has been spun elsewhere.[96]

Two factors have influenced the zonal targets for agricultural output under the Seven-year Plan. In the first place there is a need for greater regional self-

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[89] *Izvestia Sibirskogo otdeleniya Akademii nauk SSSR*, No. 6, 1959, p. 1.

[90] *Ibid.*, pp. 134-155.

[91] R. Guberman, *Transport vo vneshnei torgovle SSSR*, Moscow 1956. The accord of some initiative to *sovnarkhozy* in foreign trade arrangements may reinforce this influence (cf. G. Rybalko, *Vneshnyaya torgovlya*, No. 9, 1959, pp. 30-32). Eight of the eleven Ukrainian *sovnarkhozy* early set up foreign trade departments (F. Golovanov, *Soviet Weekly*, 1 May 1958) and a number of *sovnarkhozy* have reported themselves anxious to expand their foreign trade.

[92] Siberian development, based on local metal, will concentrate on equipment for mining and metallurgy and the *sovnarkhozy* concerned have drawn up a 1959-1965 plan of joint specialization for engineering components (A. Vedishchev, *Planovoe khozyaistvo*, No. 12, 1959, p. 70).

[93] Thus while worn-out machinery in Ivanovo was not replaced (cf. *Problemy ekonomiki*, No. 11-12, 1940, p. 175) the largest cotton mill in the world was built in Tashkent.

[94] 89.8 per cent in Central Asia and 10.2 per cent in the Caucasus of the 1965 target of 5.7 to 6.1 million tons (*Tekstilnaya promyshlennost*, No. 4, 1959).

[95] M. Ivanova, *Voprosy ekonomiki*, No. 12, 1959, p. 159.

[96] Ukrainian procurements of flax were 19 per cent and 15 per cent of the total in 1957 and 1958 respectively.

TABLE 12

Regional output of farm produce during 1954-1958 per head of local population

Percentages of national average

	Grain	Potatoes	Vege-tables	Cotton	Flax	Sun-flower seed	Sugar-beet	Meat	Milk	Wool	Eggs
European RSFSR:											
North	20	71	47	—	205	—	—	61	107	15	41
North-west	13	71	54	—	245	—	—	54	75	14	51
Centre	62	138	99	—	178	53	83	89	103	51	97
Volga	156	84	106	—	—	159	14	110	98	167	121
North Caucasus	191	23	141	—	—	57	62	132	102	300	194
Ukrainian and Moldavian SSRs . . .	114	113	146	—	71	206	322	122	112	42	124
Byelorussian and Baltic SSRs	42	253	127	—	387	—	27	142	157	31	106
Transcaucasian SSRs	33	13	69	205	—	12	12	56	45	110	63
Asian RSFSR:											
Urals	92	90	71	—	35	29	4	78	86	62	78
West Siberia	224	110	69	—	68	18	15	116	145	105	104
East Siberia.	120	68	59	—	16	—	1	100	90	141	81
Far East	32	55	89	—	—	6	7	50	54	8	54
Kazakhstan and Central Asian SSRs	129	15	53	867	—	18	46	90	60	302	62
USSR average in kg.	*566*	*417*	*70*	*21*	*2*	*17*	*177*	*34*	*243*	*1.36*	*100*

Source : Voprosy ekonomiki, No. 12, 1959, p. 7.

NOTE. — The basic data are in kilogrammes per head except for eggs, which are in units. Cotton is unginned; flax is in terms of fibre; meat includes lard and is in slaughter weight; and wool is on a greasy basis.

sufficiency, especially for perishable and heavy foodstuffs. Vasiliev, whose statistics are cited in Table 12, comments that virtually no zone now produces enough of any commodity to satisfy the long-term needs of its local population. The exceptions are cotton in Central Asia and Azerbaidzhan, potatoes in Byelorussia and the Baltic Republics, flax in the North and North-West, grain in western Siberia, beet in the Ukraine and sunflower seed in the south generally. Subject to soil and climatic limitations, more produce is, broadly speaking, needed everywhere. The second factor is the renewed attention to local specialization, both within economic-geographical zones (discussed in section 4 below) and for each farm, in order to secure better expertise and economies of scale. The effect of these policies on the Seven-year goals is shown in Table 13 for the produce least tied by climate to the present pattern; for produce such as cotton, flax and sunflowers the Plan targets are essentially projections into the future of the present location pattern, though some extension of flax and sunflower growing into the Urals, Siberia and Kazakhstan is foreseen.

The major change in grain pattern in the recent past has been the expansion of the share of Kazakhstan, as a result of the virgin lands campaign; whereas the similar campaign in Siberia has not brought so large a proportionate gain. In the Seven-year Plan, on the other hand, virtually all the increment is expected to come from the Russian Federation (the Volga, Urals and western Siberia in particular), while the Kazakh and Ukrainian shares are to diminish.

Sugar-beet growing has been extending from the Ukraine into the neighbouring regions of the Russian Federation, but the earlier development of Kirgizia has not proceeded as fast. The same trend seems to underlie the Seven-year Plan. The shares of the Ukraine and Moldavia fall to barely half of output while the Russian Federation is to enlarge its share from 29.5 per cent to 42 per cent (mainly in the central black-earth zone, the Urals and Siberia); the Kirgiz share is to drop, but that of Kazakhstan, to which it is at present equal, is to be enlarged.

By contrast, the Ukrainian[97] share of potato growing is significantly to expand in the Seven-year Plan, while that of the Russian Federation is to rise from 56 per cent in 1958 to just 59 per cent in 1965. Regional shares had been fairly constant hitherto, and elsewhere will remain so; but the zones around towns will develop output at the expense of the remoter areas. The same policy holds for sub-urban vegetable growing, but the Ukrainian share is to diminish while that of the Russian Federation is to increase. Some instances of specialization as a result of the develop-

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[97] Moldavian output, shown with the Ukraine in Table 13, was 1½ per cent of Ukrainian in 1958.

TABLE 13

Output of selected agricultural products by region, 1940 to 1965 Plan

Percentages

		European RSFSR	Byelorussian SSR	Baltic Republics	Ukrainian and Moldavian SSRs	Trans-caucasian Republics	Asian RSFSR	Kazakh SSR	Central Asian Republics
Grain	1940	39.6	2.9	3.7	29.4	1.4	18.7	2.6	1.7
	1950	33.2	3.3	3.0	26.8	2.0	24.5	5.9	1.4
	1955	36.8	1.7	0.9	34.5	1.6	18.8	4.5	1.2
	1958	35.5	1.3	1.0	23.7	1.2	20.5	15.6	1.2
	1965 Plan	..	2.5	1.6	21.5	0.9 [a]	..	13.0	0.6 [b]
Sugar-beet	1940	16.7	—	2.8	73.1	0.5	1.3	2.1	3.5
	1950	15.8	0.3	3.0	71.6	0.8	1.6	2.6	4.3
	1955	18.6	0.3	0.9	75.3	0.7	0.8	1.7	1.8
	1958	28.1	0.5	1.1	64.0	0.4	1.4	2.3	2.2
	1965 Plan	..	1.1	1.3	50.3	..	..	3.2	1.9
Potatoes	1940	39.2	15.7	8.0	27.1	0.4	8.8	0.5	0.3
	1950	40.3	10.8	7.0	23.6	0.5	16.2	1.3	0.3
	1955	37.8	12.2	5.3	24.1	0.7	18.5	1.0	0.4
	1958	41.4	9.5	5.6	27.1	0.6	14.3	1.1	0.4
	1965 Plan	..	11.8	6.4	33.5	..	..	1.3	0.3 [c]
Vegetables	1940	38.2	4.9	2.0	40.6	1.5	8.4	1.3	3.2
	1950	39.8	5.2	7.9	26.9	2.3	13.2	2.0	2.8
	1955	37.6	3.7	3.8	35.1	3.0	12.1	2.1	2.5
	1958	38.2	3.4	4.7	35.6	3.3	9.3	2.1	3.4
	1965 Plan	..	..	0.6 [d]	25.1	..	..	..	2.5 [e]
Meat	1940	31.5	5.9	7.0	25.1	3.0	19.0	4.8	3.7
	1950	37.3	4.6	5.4	25.8	2.1	17.1	5.0	2.8
	1958	33.6	5.3	4.9	27.6	2.4	17.2	5.5	3.6
	1965 Plan	35.4 *	5.2	3.6	25.4	2.0	18.2	6.6	3.7
Milk	1940	36.1	6.0	11.0	21.7	2.4	16.9	3.3	2.7
	1950	40.1	4.7	6.5	20.1	1.9	20.5	4.4	1.9
	1958	37.6	4.7	5.9	24.7	2.0	18.8	3.9	2.5
	1965 Plan	35.4 *	5.2	5.5	27.6	2.3	17.7	4.0	2.5

Sources and methods : See Appendix B.

[a] Azerbaidzhan only (0.5 per cent in 1958).

[b] Kirgizia only (0.5 per cent in 1958).

[c] Uzbekistan only (0.1 per cent in 1958).

[d] Estonia (0.7 per cent in 1958).

[e] Uzbekistan only (2.3 per cent in 1958).

ment of mining are the changes envisaged from grain to dairying and vegetables in parts of the Kustanai, Karaganda, Pavlodar, Bashkir and Tatar regions. The Far East is intended to become self-sufficient in vegetables and livestock produce.

The decrease in the share of the Baltic Republics after the war has been the biggest change in the regional pattern of meat and dairy production, but little further alteration is expected in the Seven-year Plan, save that the Ukraine is to shift somewhat from meat to milk production. In the Russian Federation an expansion of meat and milk output is specified for zones in both eastern and western regions — in Siberia and the Far East and in the Volga Zone and the North Caucasus.

The " over 40 per cent " of investment which will go to the eastern regions during the Seven-year Plan will obviously raise their share in the national capital stock by 1965, and the nature of that investment requires that this trend continue during the subsequent long-term plan. As section 1 pointed out, the Seven-year Plan is the first stage of a perspective plan and this feature is especially evident in its regional elements.

The sectors in which eastern investment is to concentrate are — as has just been shown — energy, metals, textiles and agriculture. The follow-up during the subsequent period would hence be in engineering and food-processing, both because the immense size of the Soviet Union puts a premium on zonal self-sufficiency and because intensive industrialization is part of the process of a nation-wide 'levelling-up'. Measures of 'regionalization' or 'zoning' are discussed in section 4; on the 'levelling-up' aspects of industrial dispersion there are indications rather than a clearly enunciated programme.

Other Consequences of Dispersion

The statistics of the regional spread of wages and the distribution of wage earners brought together in Table 14 indicate that one-quarter of workers are in zones where average earnings are at least 5 per cent greater than the national mean while over one-third are in zones where they are 5 per cent or more below it; and that the eastern-region wage is about one-sixth higher than the western. But as the table shows, the variation from the mean of wages differs from that of retail sales per worker not only in magnitude but even in sign. No doubt some of this divergence is due to the differential impact of transactions between farmers and the non-farm sector; more or less farm-market sales must be related to more or less retail purchases by non-wage-earners.[98] Some of the divergence must nevertheless be due to real differences in purchases per head: regional propensities to save may vary and wages earned in one zone are spent in another (either in "shopping sprees" or by dependents). Partly such variation may be a matter of convenience (especially in the case of family remittances) but mostly it must be due to differences in supply. It is clear that the Plan aims both at "introducing correct regional wage differentials"[99] and at evening-out regional inequalities in consumer-goods supplies (just as it also aims at spreading supplies, notably of farm produce, more evenly throughout the year).

TABLE 14

Regional distribution of wage-earners, wage levels and retail sales in 1956

Zone	Workers	Wage index	Retail sales per worker: At current prices	Retail sales per worker: Adjusted for price differentials
	Percentage of USSR total	Percentage above or below USSR mean		
North	2.1	+4.5	−10.4	−20.6
North-west	5.8	+8.3	+11.9	+11.2
Centre	24.0	−6.7	+1.3	+0.7
Volga	5.8	−8.9	−13.5	−10.7
North Caucasus	5.0	−3.9	−1.0	+5.3
Ukrainian SSR	17.4	+2.4	−4.3	+1.7
Moldavian SSR	0.7	−25.6	+14.9	+22.2
Byelorussian SSR	2.6	−23.3	+0.7	+1.1
Lithuanian SSR	1.0	−14.8	−5.3	−2.3
Latvian SSR	1.1	−2.7	+15.7	+19.4
Estonian SSR	0.7	+4.8	+10.0	+13.6
Georgian SSR	1.5	−3.5	+9.1	+9.4
Azerbaidzhan SSR	1.2	−6.7	+4.0	+4.4
Armenian SSR	0.6	−10.4	+0.1	+0.4
Western regions	*69.6*	*−3.5*	*−0.4*	*+1.5*
Urals	9.4	+5.4	−15.8	−17.8
West Siberia	6.4	+0.2	−12.5	−9.7
East Siberia	3.7	+12.7	+0.3	−2.2
Far East	2.7	+51.3	+34.0	+18.7
Kazakh SSR	4.3	+5.0	−9.3	−6.3
Uzbek SSR	2.2	−8.2	+30.1	+34.3
Kirgiz SSR	0.6	−0.6	+7.1	+10.6
Tadzik SSR	0.5	−1.4	+35.2	+39.5
Turkmen SSR	0.5	−4.2	+19.0	+22.9
Eastern regions	*30.4*	*+7.9*	*−2.5*	*−3.3*

Sources : Wages and retail price index from B. Bukhanevich and M. Sonin, *Voprosy ekonomiki*, No. 1, 1957, pp. 21 and 22; wage-earners and retail turnover from *Narodnoe khozyaistvo SSSR v 1958 godu*, pp. 661, 716; and *Narodnoe khozyaistvo RSFSR v 1958 godu*, pp. 370-371, 393, 394.

The Government's policy is, however, that improved social amenities and opportunities for using earnings and leisure, rather than money-wage differentials, should in future encourage migration to newer regions.[100] Migration has already brought an ethnic intermingling of nationalities which — political and sociological considerations apart — is of major significance in drawing together the consumption-patterns and income-incentives of a multinational state. The 1959 Census[101] has shown, for example, that those of Russian ethnic stock now form 43.1 per cent of the population in Kazakhstan, 30.2 per cent in Kirgizia and 26.6 per cent in Latvia.

The wage reform envisaged by the Plan Directives is also aimed at merging the zonal differentials set up under the former industrial ministries, the continuance of which — reflected in selling prices — could inhibit intrazonal transactions by enterprises.[102] Such a

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[98] The variations within the wage-pattern and among collective-farmers' incomes by no means always coincide. Thus in the first half of 1956, the divergence of money-incomes from each country-wide average was as follows:

	Wage-earners	*Farmers' incomes*
Latvian SSR	+15	+12
Turkmen SSR	+4	+35
Byelorussian SSR	−15	−23
Lithuanian SSR	−15	−28

Source : V. Tyukov, *Sovetskaya torgovlya*, No. 5, 1957, p. 34.

The divergence of the Latvian and Turkmen figures above and in Table 14 must chiefly be due to the former's inclusion of all money incomes.

[99] S. Novozhilov, *Pravda*, 18 October 1959.

[100] See the speeches cited in footnote 42.

[101] *Pravda*, 4 February 1960.

[102] B. Bukhanevich and M. Sonin, *Voprosy ekonomiki*, No. 1, 1957, especially p. 21, illustrate the ministerial variations, and V. Vityazeva, *Planovoe khozyaistvo*, No. 11, 1957, p. 80, has pointed out that Pochora coal shows a higher-than-average production cost because Polar supplements have to be added to wages. The former ministries also allowed illicit rebates on sales to their 'own' enterprises and this must have been a cause of some of the irrational cross-hauls condemned when the ministerial system of administration was criticized during 1955-1957 (see A. Volin, *Kommunist*, No. 3, 1959, p. 53).

TABLE 15

Selling-prices and transport charges for four materials from enterprises in the Moscow area

Roubles per 50 tons c.i.f. station of destination

	Cement	Ceramic tiles	Construction steel	Radiators
Price when sold in :				
Moscow or Minsk .	9 500	79 000	48 750	54 650
Petrozavodsk . . .	10 400	80 250	51 000	56 213
Rail freight to :				
Minsk	1 218	1 478	1 114	1 114
Petrozavodsk . . .	1 475	1 834	1 305	1 305
Net proceeds on sales in :				
Moscow	8 700 [a]	79 000	47 000 [a]	54 659
Minsk	8 282	77 522	47 636	53 536
Petrozavodsk . . .	8 925	78 416	49 695	54 908

Sources and methods : See Appendix B.

[a] Rebate for ex-works consignment deducted (see " Sources and Methods ").

unification within regions is part of the general problem of zonal pricing for producers' goods. The majority of goods are priced ex-works or f.o.b. station of origin, and transport costs automatically influence the choice of supplier; and for the minority of products priced c.i.f. station of destination the seller has to absorb transport costs and thus has a complementary tendency to favour nearby clients. However, these tendencies are modified if — as in most cases — prices are differentiated by zone of delivery. The number of zones used in the Soviet Union for this purpose vary from three (for constructional steel, plywood and soft roofing) to twelve (for lumber) with most products given five or six zones (e.g. for cement, plasterboard, ceramic pipes and tiles, cast-iron pipes, radiators and oil products) and in some cases seem to be too coarse to equate the price differentials to actual transport charges. Table 15 shows that a supplier may not only be dissuaded from offering goods to a consumer some distance away though in the same price zone (the case of deliveries from Moscow to Minsk), but may even be persuaded to ship his goods into another price zone rather than sell to a client in his own city (the case of deliveries from Moscow to Petrozavodsk of three out of the four products cited) when a rebate is allowed for collection by the client which is greater than the transport charge to another price zone.

The rail tariffs in a few cases seek to inhibit such irrational freights — e.g. for shipments of timber in excess of 500 km. the charge is automatically raised 50 per cent — and numerous controls are instituted to ensure that once a delivery contract has been signed (under the existing supply plans) the delivery will be made. Thus a fine of 4.5 per cent of the value of the goods contracted is imposed for non-delivery to enterprises in other *sovnarkhoz* areas — against 3 per cent when the supplier and client are in the same area — but in two of the cases computed in Table 15, this fine is less than the ' loss ' the Moscow supplier would incur in shipping to Minsk (which is under a different *sovnarkhoz*).[103] Where non-zonal prices are concerned, variant price-lists applicable to *sovnarkhoz* and ' local ' enterprises may not reflect relative cost differences and may again lead to irrational regional supply patterns. A sample of the wide variation in such prices is given in Table 16, and, although relative costs are not available, the fact emerges even from this sample that large nails are dearer whereas small nails are cheaper in Russian Federation local plants than in *sovnarkhoz* plants.

TABLE 16

General non-zonal prices and local prices for selected commodities

Roubles

	General	RSFSR	Ukraine
Nails, small — per ton	6 520	5 810 [a]	..
Nails, large — per ton	2 150	2 605 [a]	3 300
Galvanized steel sheet — per ton .	2 195	2 620	..
Angle steel — per ton	601	799	..
Oil tanker-lorry (excluding chassis) — each	7 400	..	10 500

Sources and methods : See Appendix B.

[a] 5,705 and 2,500 respectively from 1 July 1955 to 1 July 1956.

4. PLANNING PRODUCTION BY ZONES

The Decentralization of Economic Administration

The dispersal of industrial and agricultural production which is to take place during the next seven years and beyond is — it is hardly necessary to state — centrally planned. However, under the 'territorial principle' of economic management introduced concurrently with the start of work on the Seven-year Plan in mid-1957, the planners were faced with more locally generated proposals than they had been in elaborating earlier five-year plans, when economic administration was governed by the 'central-departmental principle'. Moreover enterprises (and the new

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[103] Price data are from *Spravochnik tsen*, Moscow 1956, and rail tariffs from *Tarifnoe rukovodstvo*, No. 1, p. 77. A Ministry of Finance official has commented " It is now glaringly clear that the existing system does not incite enterprises and building organizations to establish more rational economic links by seeking out nearer suppliers, since they receive no material benefit therefrom " (L. Elyshev, Z. Stepanova, *Promyshlenno-ekonomicheskaya gazeta*, 23 October 1959).

sovnarkhozy) were specifically called upon to formulate their own projects, whereas for previous plans they had in principle been required only to comment upon propositions formulated centrally.[104]

The recasting of industrial and building management effected by the Law of 10 May 1957, and the first stages in the devolution of central powers to the governments of the fifteen Union-Republics, have been described in preceding SURVEYS.[105] The proportion of general-government expenditure passing through Union-Republican accounts doubled over three years, and extended budgetary powers were confirmed by a Law of 30 October 1959.[106] Their planning committees (Gosplans) took over between May 1957 and April 1958 various planning and supply responsibilities formerly exercised by the USSR Gosplan and the liquidated ministries, and in November 1958 they inherited the supervisory functions of the former USSR Ministry of (Retail) Trade. Two separate extensions of their powers — at the beginning of 1957 and in June 1958 — gave them the right to distribute at their discretion food of animal origin, potatoes and other vegetables, fruit, hops and hay procured in quantities exceeding the amounts planned for delivery to other Republics and certain central requirements, as well as to plan and allocate all procurements of root fodder and melons. But grain and all produce requiring processing (e.g. beet, cotton, flax, furs, hemp, hides, oil-seeds, tea, tobacco, wool) remain wholly at the disposal of the central authorities.[107] The devolution of allocation powers also brought the Union-Republic Gosplans some — but not as much — authority over price setting.

The powers over procurement quotas retained by central and republican agencies are, however, the only ones formally held over collective farms since the abandonment in March 1955 of compulsory sowing and livestock plans and the dismantling from June 1958 onwards of machine-tractor stations.[108] State and collective farms were encouraged to use their new powers of initiative to draw up their own seven-year plans, a process for which they had the aid of various local government agencies — the *oblast* (region) and *raion* (rural district) executive committees and their planning commissions, production-technical councils and standing agriculture committees.[109]

The Administrative Concept of an Economic Zone

The devolution of some operational initiative, and the presentation of regional and local projects for the Seven-year Plan, posed with renewed force the central planners' need for criteria for location choice. The USSR Gosplan, from its inception as the Goelro Commission, had used economic zoning as a planning instrument, the nature of which is indicated by the extent of the zones shown in Maps 1 and 2, i.e. small enough to ensure that each zone's production suited its resource endowment and made possible economies of scale and specialization, yet large enough to enable a supporting cross-section of industry and agriculture to be built up.

When the first pattern of such zones was drawn up — the Goelro scheme of 1921 (Map 1) — purely economic criteria could be used for delineation, for political boundaries were at the time in flux. As the administrative structure consolidated, however, political frontiers increasingly broke up the original economic boundaries; and by the time of the Second Five-year Plan the number of zones had risen from Goelro's 20 to 32. The 1939 scheme (solid and broken lines on Map 2) sought to offset this proliferation by merging zones within the Russian Federation but left each Union-Republic its status of an economic region.

After the war, Gosplan adopted a scheme of groupings (solid lines on Map 2) under which no Union-Republic was by itself a zone, and correspondingly merged some of its zones within the Russian Federation (though as before grouping, and not sub-dividing, *oblasts*). By 1956 Gosplan had decided that its zones were too large; and its newly re-created Research Institute proposed to make Kazakhstan and Byelorussia into two separate zones and to break up the Russian Federation into zones which divided a number of the larger political regions; this was apparently too radical a proposal, and the pattern being established by Gosplan on the eve of the management reform adhered to *oblast* frontiers, although it extended

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[104] See A. Petrov, *V pomoshch politicheskomu samoobrazovaniyu*, No. 9, 1959, p. 25.

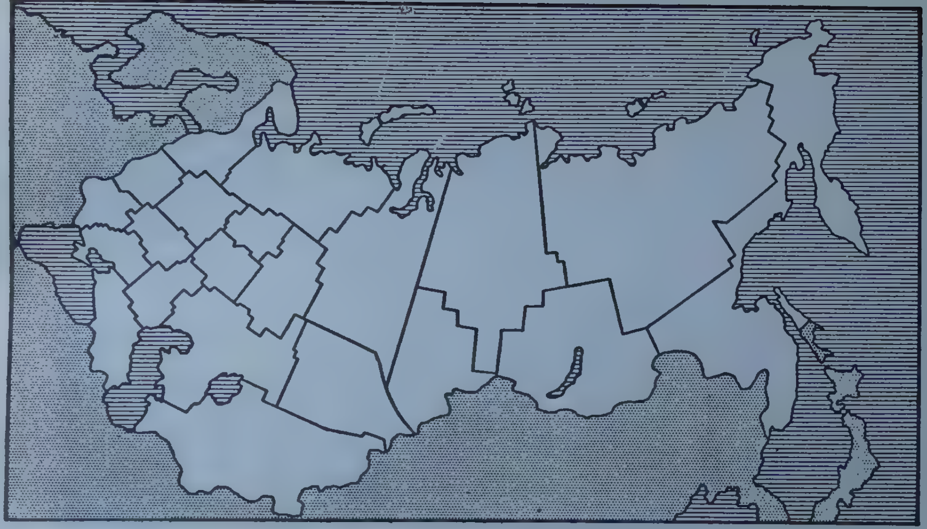
[105] SURVEY for 1955, pp. 214-215; SURVEY for 1956, Chapter I, p. 40; SURVEY for 1957, Chapter I, pp. 32-37.

[106] The Union-Republics' share in outlay was 26 per cent in 1955 — as it had approximately been for many years — rose to 53 per cent in 1958 and is 52 per cent in the 1960 Budget. For a concise commentary on the new Law see M. Pisotin, *Sovet deputatov trudyashchikhsya*, No. 12, 1959, pp. 18-22.

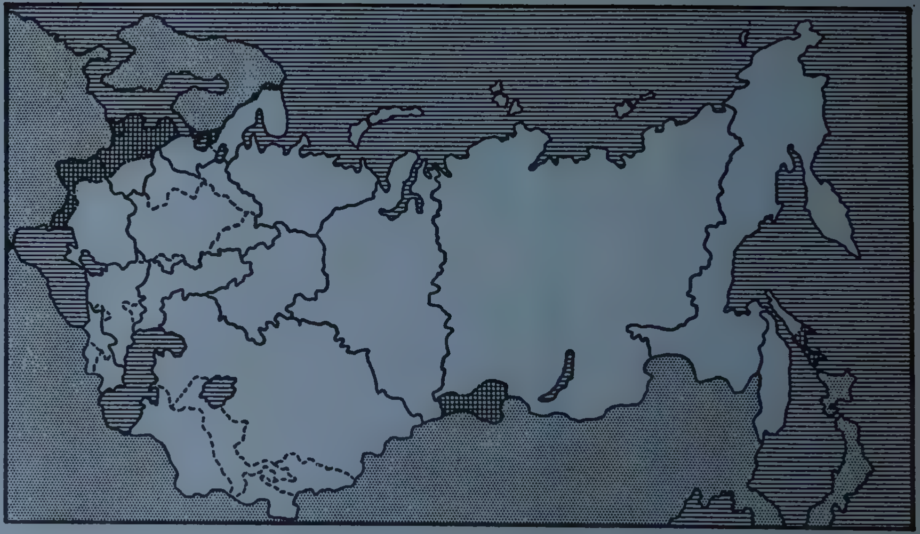
[107] I. Melnikov, *Novaya sistema zagotovok selskokhozyaistvennykh produktov*, Moscow 1958, pp. 29-30.

[108] Cf. SURVEY for 1957, Chapter I, pp. 9-10; SURVEY for 1958, Chapter I, pp. 18-19; and *Economic Bulletin for Europe*, Vol. 10, No. 1, pp. 35-36, and Vol. 11, No. 3, p. 40. Collective farms had been allowed some latitude in choosing the type of grain they sowed by a decree of 28 December 1938. Revoked on the outbreak of war, the facility was restored in 1947, but until 1955 represented the only degree of farm choice of sowings. State farms have from 1956 onwards been granted wider powers of initiative and are currently being formed into regional ' trusts '.

[109] The agricultural inspectorate, set up in 1958 to promote improved techniques and to audit farm accounts, has also been subordinated to the *raion* committee. For more details on the activities of the various *raion* agencies, see P. Seregin, *Sovet deputatov trudyashchikhsya*, No. 10, 1959, pp. 29-36, and the decree in *Pravda*, 20 April 1959.

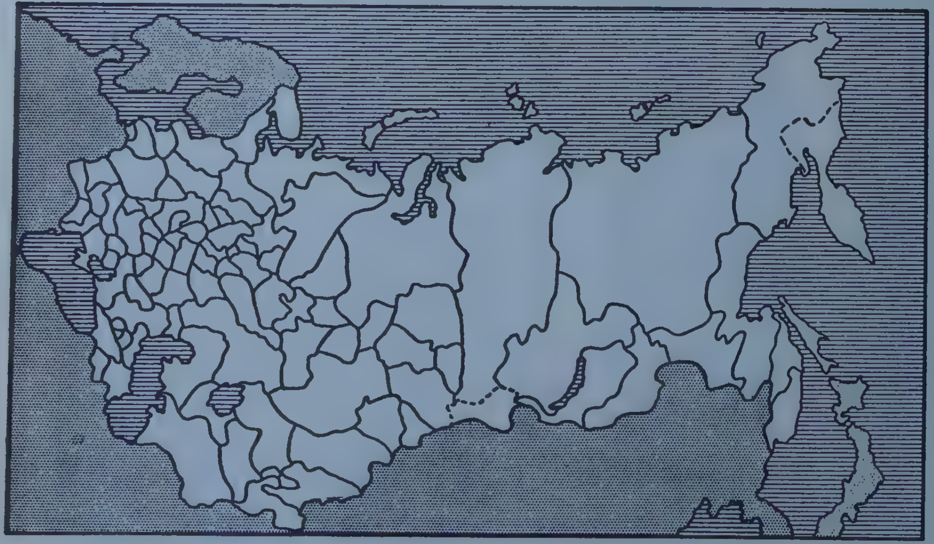


MAP 1. — **Zones used by Goelro 1921**

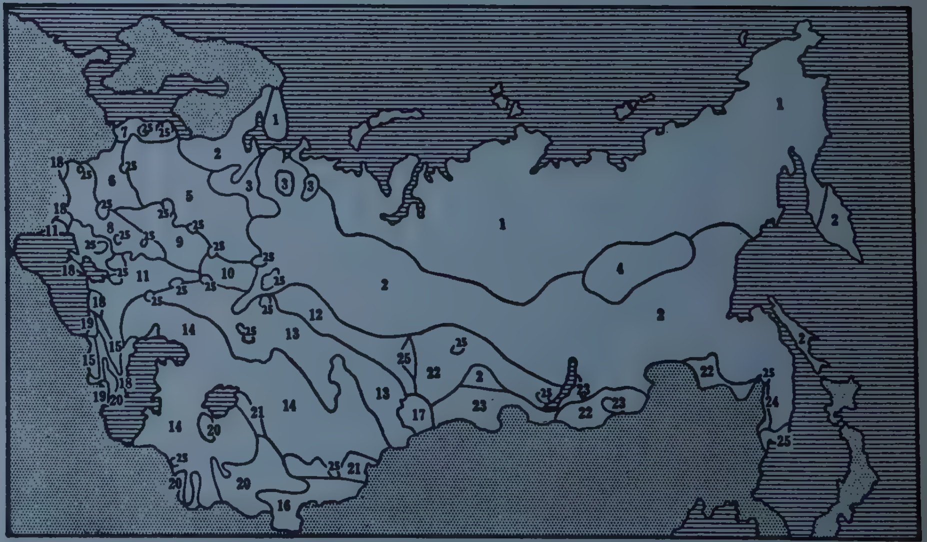


MAP 2. — **Zones used by Gosplan 1939-1956**

MAP 3. — **Economic-administrative regions 1959**



MAP 4. — **Proposed agricultural zones 1957**



Sources : P. Alampiev, *Ekonomicheskoe raionirovanie SSSR*, Moscow 1959, pp. 119, 177, 184, 212 and 213 Maps 1-3); G. Cherdantsev (ed.), *Ekonomicheskaya geografia SSSR*, Moscow 1958, Vol. III, p. 208.

Key : In Map 2 the solid lines represent boundaries of economic zones used both in 1939 and 1946-1956, the broken lines those used only during 1946-1956; hatched areas represent territory incorporated between 1939 and 1945. In Map 3 the broken lines represent boundaries of *oblasts* without a *sovnarkhoz*. The code for the zone numbers in Map 4 is in Cherdantsev, *op. cit.* p. 209.

sub-division from the Russian Federation to Kazakhstan and the Ukraine also.[110]

The 1957 reorganization was dominated by the politico-administrative structure (Map 3). All but two *oblasts* of the Russian Federation were each formed into an economic-administrative region controlled by a *sovnarkhoz*,[111] and the sub-divisions of the other three Republics which were broken down to smaller *sovnarkhozy* followed *oblast* lines: in the Ukraine five *oblasts* had their own *sovnarkhoz* and the other six *sovnarkhozy* were groups of *oblasts*. One *oblast* — Bukhara — has since been detached from the *sovnarkhoz* of which it originally formed part.

Alampiev observes the advantage of coincidence of economic and administrative boundaries, when " all organizations planning the economy of a given area (*sovnarkhoz*, *oblast* planning commission) may work in close mutual contact ".[112] Much decision-making has been effectively devolved to local bodies, but these are neither the same bodies for all such decisions nor are they always ready to co-ordinate their activities. Perhaps the most frequent problems have been those of co-ordinating ' local ' with *sovnarkhoz* industry.[113] ' Local ' industry is subject to the planning control of the *oblast* but is run by various local authorities responsible directly to the Union-Republic; and a general attempt in 1957 to merge these under new agencies to be called *sovmestpromy* failed to materialize. However, in some areas *raion* enterprises have been taken over by the *oblast*.[114]

It is stressed that *sovnarkhozy* are not local authorities but central-government agents operating in localities and responsible to the Union-Republics.[115] But during 1958 and 1959 the division of local planning and executive authority below the level of the Union-Republic — between ministries, *sovnarkhozy* and local authorities — has been insistently criticized[116] and some *de facto* mergers of *sovnarkhoz* and local-authority activities have begun to appear.[117] The merger of all economic authorities below the *sovnarkhoz* level has now been proposed.[118]

The present *sovnarkhozy* are not, moreover, " the last word on zoning "[119] and increasing attention is being devoted to the use of larger zones. In the eighteen months between their creation and the XXI Party Congress which approved the Seven-year Plan, there were meetings of *sovnarkhoz* representatives within broad economic zones such as the Urals, and the Baltic States with Byelorussia; and there were numerous proposals among economists for more such zonal consultations.[120] The reference by the XXI Party Congress in its Directives on the Seven-year Plan to " the greater specialization and comprehensive development of the economy both of republics and big economic-geographic regions such as the Urals, Siberia Central Asia and Transcaucasia " was interpreted as an adoption of this grouped approach not only for industry run by *sovnarkhozy* but for all economic activity within such economic zones, and indeed as a new attitude to zonal planning altogether.[121] In fact the change of approach was of degree and not of kind, and in principle would culminate in that of Feigin who has proposed the use in planning of three or four grand zones which could aim ten or fifteen years hence at industrial and agricultural self-sufficiency.[122] An adaptation of this idea by Alampiev and Tokarev for use in the 1975 plan-models was recently accepted as a basis for study by the Scientific Council of the Institute of Economics.[123]

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[110] See Alampiev, *Ekonomicheskoe raionirovanie SSSR*, Moscow 1959, pp. 197 and 198. The Institute's scheme, revised in collaboration with Gosplan's new Council for the Study and Distribution of Productive Resources, and redrawn so as to respect *sovnarkhoz* boundaries, was presented to the conference on space economy already mentioned (*Voprosy ekonomiki*, No. 12, 1959, p. 161). At the same conference a proposal came from the Ukrainian Institute of Economics to sub-divide that republic (I. Kugokalo, *ibid.* p. 162).

[111] With the exception of the Tuva Autonomous Oblast, whose scant industrial and construction enterprises were transferred to the *oblast* Council in 1957 to be run as ' local ' industry; in 1959 the Kamchatka *Sovnarkhoz* was abolished and its main industry, fisheries, subordinated to a regional trust. Their boundaries are marked with a broken line in Map 3.

[112] *Op. cit.* pp. 208-209.

[113] See P. Nosov, *Planovoe khozyaistvo*, No. 9, 1959, p. 85. On broader conflict with *oblast* plan commissions which are responsible not only for ' local ' industry, but agriculture, consumer services, etc., see two articles by A. Golovin, *Izvestia*, 4 July 1958, and *Planovoe khozyaistvo*, No. 9, 1959, especially p. 88.

[114] For example, in Kirov *Oblast* (L. Filatov, *Sovet deputatov trudyashchikhsya*, No. 5, 1959, pp. 15-22).

[115] A. Vikentiev, *Sovnarkhozy v deistvii*, Moscow 1958, p. 27.

[116] Among many calls for co-ordination (or common subordination) the following may be cited: between the construction offices of *sovnarkhozy*, local authorities and central departments (V. Zabulaev, *Pravda*, 28 June 1959), between consumer services supplied by *sovnarkhozy* and by local councils (B. Khangeldev, *Sovetskoe gosudarstvo i pravo*, No. 5, 1958, pp. 105-107, and G. Sukhov, *Radyanska Ukraina*, 11 September 1959), between *sovnarkhozy* and the Ministries of Railways and of Transport Construction over spur lines (I. Kulev, *Kommunist*, No. 9, 1959, pp. 31-32; L. Lushkevich, *Stroitelnaya gazeta*, 4 January 1959, and G. Petelin, *Trud*, 9 January 1959), between various forestry enterprises (*Lesnoe khozyaistvo*, No. 9, 1959, pp. 1-3; A. Goncharenko, *Voprosy ekonomiki*, No. 7, 1958, p. 167), and over the entire field of the overlapping activity of *sovnarkhozy* and local authorities by Yu. Tikhomirov (*Mestnye sovety i sovnarkhozy*, Moscow 1959).

[117] For example, in Latvia (P. Egerin, *Trud*, 9 December 1958); in some areas joint supply agencies for *sovnarkhozy* and local industry have been created (V. Abramov, *Finansy SSSR*, No. 3, 1958, p. 19). V. Razorenova (*Voprosy ekonomiki*, No. 7, 1958, p. 167) has argued for the formal merger of *sovnarkhoz* and 'local' industry and Academician S. Strumilin (*Literaturnaya gazeta*, 2 December 1958) for the subordination of state and collective farms to *sovnarkhozy*.

[118] V. Kistanov, F. Sukhopara, *Pravda*, 3 January 1959. See also a summary of proposals for such mergers in *Planovoe khozyaistvo*, No. 12, 1959, pp. 88-91.

[119] Alampiev, *op. cit.*, p. 222.

[120] *Ibid.*, pp. 222-223, and N. Gerasimov, T. Khachaturov, Ya. Feigin, P. Alampiev, *Promyshlenno-ekonomicheskaya gazeta*, 14 September, 1958; R. Levin, *Voprosy ekonomiki*, No. 7, 1958, p. 168, and A. Kursky, *ibid.*, p. 165; P. Alampiev, V. Kistanov, F. Sukhopara, *Kommunist*, No. 16, 1958, pp. 57-62; V. Kistanov, F. Sukhopara, *op. cit.*

[121] By Feigin in an address to the October 1959 conference on space economy (*Voprosy ekonomiki*, No. 12, 1959, p. 157).

This ' grand zone ' proposal is in fact the logical outcome of attempts to create integrated zones. For some purposes one set of economic frontiers will be unsuitable, even though they may be useful for others.[124] Academician Nemchinov, as a theoretical economist, and Mr. Ivashchenko, the Chairman of the Economic Commission of the Soviet of Nationalities, as a political spokesman, have both made a point of the dangers of frontiered self-sufficiency and much has been written of the dangers of *sovnarkhoz* preference for self-supply.[125]

Product Zoning

The realization has thus been growing in the Soviet Union that regional planning and economic operations, whether or not subject to a 'grand zone' framework, should be based upon differentiated zones for variant purposes — the ideal model being economic sales areas for individual products,[126] presumably supported by subsidies from central funds for production and social investment in development areas.

The evolution of the new principle of differentiated production-zoning may be seen in three forms: the discussion of industrial location in the Seven-year Plan; the new supply system; and the introduction of agricultural zoning.

Numerous studies on particular product plans for the 1959-1965 period have evolved regional radii the length of which are in inverse proportion to unit-production costs and transport charges. The Council for the Study of Productive Resources has compared transport radii with technical indicators of the various coal basins to project a rational exploitation map for 1970-1975.[127] Similar studies are in progress for oil and electricity, and Gosplan has already published a 1965 model for energy location as a whole. The USSR Institute of Economics has produced a location pattern for ferrous metallurgy and the Gosplan Research Institute one for engineering. Other such studies have covered chemicals, cement, cotton spinning and all textiles.[128] A more general pattern study is under way, with a 15-year plan horizon and the similar practice of other countries of eastern Europe has begun to be reviewed.[129]

As significant as production-zoning, and essential for its operation, the projected supply system for the Seven-year Plan embraces the apparently new principle of " transport-economic radii " within which " enterprise attachments " would be developed: each enterprise would be linked to others — on the basis of minimal production and haulage costs — both for its supplies and its disposals.[130] The contradiction between the " territorial principle " of production and a centrally-dictated supply system became particularly clear when the initial advantages of stock redistribution, created by the 1957 reform, were exhausted, and when — at the beginning of 1959 — such transfers were virtually halted.[131] Furthermore, *sovnarkhozy* have tended to abuse their rights to fix their own input coefficients. Thus in 1959 certain *sovnarkhozy* increased their input norms of cement per unit of slag block over those ruling in 1958, by 40 per cent in Kaliningrad, 50 per cent in Leningrad and 57 per cent in Kemerovo.[132] The Union-Republican Gosplan practice of planning outputs through territorial departments, and supplies through commodity departments,[133] has led not only to enterprises receiving output plans long before they know their input plans but to the one not to be consistent with the other.[134] The enforcement of ' co-operative delivery ' plans by law, despite a demonstrated irrationality, has also added force to the need for a new supply system.[135]

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[122] *Izvestia*, 30 November 1958; *Voprosy ekonomiki*, No. 1, 1960, pp. 59-68.

[123] *Voprosy ekonomiki*, No. 12, 1959, p. 161. Alampiev and Tokarev specified four grand zones: two in each of the European and Asian parts of the USSR.

[124] Hence a compromise proposal for overlapping zones, e.g. for the Far North as a development area with common features, formed of areas north of the Arctic Circle of the standard zones used for production planning (Alampiev, *op. cit.*, p. 36). This idea was adopted in the statistical abstracts of the Russian Federation. The Chairman of the Economic Commission of the Soviet of Nationalities has called for the unification of economic agencies in the Far North (*Pravda*, 11 February 1960).

[125] V. Nemchinov, *Voprosy ekonomiki*, No. 4, 1959, p. 30; O. Ivashchenko, *Pravda*, 26 January 1959.

[126] Attention has been concentrated on prime-cost radii (e.g. P. Levitsky, *Ekonomicheskie nauki*, No. 2, 1959, p. 8). The fullest study of these radii compares the uses of prime costs and prices and of transport costs and rail tariffs (Yu. Koldomasov, *Metod materialnykh balansov v planirovanii narodnogo khozyaistva*, Moscow 1959, p. 97).

[127] N. Gerasimov, *op. cit.*, p. 154, who interestingly concludes that it is advantageous for Kuznetsk coal to be shipped to Europe, though the extent of such deliveries was one of the favoured examples of irrational freights in the 1955-1957 discussions of industrial administration.

[128] For a list of the studies mentioned in this paragraph see Appendix B (section ii (q) of notes to Chapter IV).

[129] See *Planovoe khozyaistvo*, No. 5, 1958, p. 34, and No. 1, 1960, p. 91; and E. Alaev, *Voprosy ekonomiki*, No. 10, 1959, pp. 90-99.

[130] I. Kulev, *Kommunist*, No. 9, 1959, p. 27, remarks that this new concept " has not yet received the development it needs despite all its worthiness which was also spoken of by N. Khrushchev in his report to the VII Session of the Supreme Soviet " (on the 1957 industrial management reform).

[131] On the advantages of such transfers, see the SURVEY for 1957, Chapter I, p. 33. The prohibition related to transfers of stocks between enterprises of different industries (Kulev, *op. cit.*, p. 26, asks for its repeal or at least its restriction to transfers between producer- and consumer-goods enterprises). Transfers between *sovnarkhoz*, ' local ' or ' ministerial ' enterprises are permissible only with the express consent in each instance of the Union-Republican Council of Ministers.

[132] Kulev, *ibid.*, p. 28.

[133] In the RSFSR Gosplan the supply departments are equipment, metals and materials (*ibid.*, p. 24).

Remarking that " the zonal character of agricultural production had always been stressed by the founders of Russian agrarian science," Academician Nemchinov reintroduced the subject of agricultural zoning as particularly relevant after the 1955 devolution of farm planning.[136] A map of natural zones for agriculture was drawn up jointly by the Dokuchaev Soil-Research Institute, the Institute of Geography and the Council for the Study of Productive Resources on the basis of which (together with an analysis of commercial prospects) a map of farm " product specialization " was elaborated by the Council for the Study of Productive Resources.[137] This latter map followed only *raion* boundaries but a variant was produced (of 29 " natural-economic zones ") which respected *oblast* and Union-Republic frontiers. Independently, the USSR Ministry of Agriculture and the Lenin All-Union Academy of Agricultural Sciences began in 1956 a study of agricultural zoning which resulted in a very similar map showing roughly the same number of zones and adhering to oblast boundaries.[138] Work then proceeded in the Academy of Agricultural Sciences on refining the map down to *raion* boundaries, with the assistance of local commissions. This work of *raion* classification is still in progress, but a map published in 1958 appears, by its *raion* rather than *oblast* groupings, to foreshadow something of the eventual pattern (Map 4).

In the new zoning system both transport radii and natural advantages for crops or livestock are to delineate the zones, initially in creating a vegetable-and-dairy-farming zone around each major city[139] and eventually for all commercial crops.[140] The definition of natural advantage is oriented both to land-economy (the criteria for which are crop yields and livestock produce per 100 hectares of agricultural land) and to man-economy (the criterion for which is not so much output per labour-day as output per man-day).[141]

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[134] See Koldomasov, *Planovoe khozyaistvo*, No. 4, 1959, p. 60, and speeches to the June Plenum of the Party Central Committee by D. Kunaev, K. Simakhov and G. Gaile (*Pravda*, 27, 28 June 1959), Chairmen respectively of the Kazakh Council of Ministers, and the East-Kazakhstan and Latvian *Sovnarkhozy*.

[135] Within the Leningrad *Sovnarkhoz* the Leipse Factory was compelled by the State Arbitrator to conclude a contract for deliveries to the Skorokhod Factory even though the price was uneconomic because this link had been listed in the co-operative delivery plan (V. Yakovleva, *Pravovedenie*, No. 2, 1959, p. 37).

[136] V. Nemchinov, *Planovoe khozyaistvo*, No. 4, 1955, pp. 60-75; V. Sotnikov, *Sistema vedeniya selskogo khozyaistva po prirodno-ekonomicheskim zonam*, Moscow 1959, p. 9, characterizes the system operative until then as " ignorant of these (soil, climate, topographic and other natural) conditions, agriculture was run by stereotypes without adjustment for local conditions."

[137] Nemchinov reproduces these two maps (*ibid.*, pp. 66 and 70) but presents an alternative system ensuring the integrity of *sovnarkhoz* regions in V. Nemchinov (ed.) *Kormovaya baza zhivotnovodstva SSSR i puti ee razvitiya*, Moscow 1959, p. 9.

[138] Sotnikov, *op. cit.*, p. 10. He supplies, however, no map.

[139] These are the zones numbered 25 in Map 4.

[140] N. Vasilev, *Voprosy ekonomiki*, No. 12, 1959, p. 3.

[141] See Sotnikov, *op. cit.*, p. 26; K. Bezborodov, K. Brodov, *Planovoe khozyaistvo*, No. 4, 1959, p. 52; V. Manyakin, *Voprosy ekonomiki*, No. 5, 1958, especially p. 55; and A. Teryaeva, *ibid.*, No. 1, 1959, especially p. 110. Man-days were the criterion used by Mr. Khrushchev at the December 1958 session of the Party Central Committee; his data were reproduced in the SURVEY for 1958, Chapter I, Table 9.

PART III

THE ECONOMIC SIGNIFICANCE OF THE PUBLIC SECTOR

CHAPTER V

THE PUBLIC SECTOR: ITS SIZE, STRUCTURE AND INSTITUTIONAL FRAMEWORK

INTRODUCTION

In most countries of western Europe about one-third of national income is at present channelled through the public sector, and government expenditure on goods and services, together with the investment of public enterprises, absorbs between 15 and 25 per cent of gross national product. Hence the way in which the public sector operates is bound to affect significantly the course of economic developments. For that reason it is important to assess the extent to which public sector operations promote the aims of government economic policies.

There are four major aspects of the impact of public sector operations on the economy: first, the micro-economic effects of specific fiscal measures on the economic behaviour of households and enterprises in particular markets; second, the welfare implications arising from public activity, including questions of income distribution as affected by the pattern of public expenditure and taxation; third, public sector influence on the allocation of resources, on long-term structural development, and on economic growth; and finally, the largely short-term effects of public sector operations on macro-economic variables such as employment, production and prices.

The present study limits itself to the last mentioned of this wide range of topics — i.e. the role of the public sector in influencing short-term economic developments — and both its emphasis and its range are determined by this limitation. Furthermore, the selection of this policy aspect has meant that its geographical coverage is confined for the most part to the highly industrialized countries of western Europe, since in the less developed countries the major concern of public sector operations is with problems of structural change and economic growth. These problems are examined in a wider context in Chapters VII and VIII for the countries of southern Europe and for Ireland.

The study first sets out to review the present size and structure of the public sector in western Europe and to examine the institutional framework within which it operates. This is the subject of the present chapter. Chapter VI confronts the resultant empirical findings with the theoretical setting of alternative budgetary policies and proceeds to a comparative review of the policy experiences of selected countries during the past decade.

The object of this chapter, then, is to present a comparative picture of the size and structure of the public sector and of its components — namely, general government, consisting of central government (including compulsory social security administrations or funds) and local government, and public enterprises.[1]

National statistics as they are presented in annual governmental budgets are among the least uniform of all economic statistical series in respect of the concepts used, coverage, and breakdown. Fortunately, however, a number of countries in western Europe are now publishing rearranged budgetary data on the basis of national accounting concepts, and a recent study by the OEEC [2] sets out these hitherto unpublished data on an internationally comparable basis. It was only thanks to these statistics having become available that an attempt could be made here to provide an international comparison of the size and structure of the general-government sector.[3]

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[1] The concepts used in this study conform to the definitions given in *A Standardized System of National Accounts*, 1958 edition, OEEC, Paris, p. 37. Thus, "General government comprises all agencies which undertake all forms of activity (for example, administration, education, defence, health services, etc.), whether central or local, other than those performed by agencies included in the category of government enterprises .... These government agencies are included independently of their treatment in the government accounts . . . and . . . include, in addition to government agencies in the narrower sense, social security arrangements — if these are not already formally part of government and if their activities may be regarded as an instrument of the social policy of the government." The distinction between central and local government is between the central authorities proper and all other subordinate authorities such as communes, provinces, departments, cantons and *Länder*. The social security arrangements referred to are generally included under central government. The public enterprises are defined and discussed in some detail in section 4.

On public enterprises no such internationally comparable statistics exist and the national statistics of the size and structure of the public-enterprise sector in various countries are scattered and incomplete. A large gap will have to be filled through the provision of more statistical and other information before the size and role of the public-enterprise sector can be adequately described. Nevertheless, an attempt has been made to collect such data as exist for the more highly industrialized countries and these are presented in section 4 with a brief discussion of central-government control over public-enterprise operations.

The way in which the public sector functions and the extent to which it is an effective means of influencing economic activity depend to an important extent on the institutional framework within which it has to operate. Section 3 describes both the extent of central-government control or influence over public-sector operations and the institutional factors which determine the degree of flexibility of budgetary instruments.

1. The Size and Long-term Growth of the Public Sector

There is no straightforward and unique yardstick for measuring the absolute size of the public sector in any one country, for making inter-country comparisons, and for showing its growth over time. The available statistics have enabled the use of four standards of measurement in the present study: the purchases of goods and services by the public sector for investment and consumption; its claim on real resources — as measured by the use of manpower, since data on the size and ownership of the stock of capital are not available; the contribution of the public sector to total factor income — in other words, the wage and salary payments and profits generated in the public sector; and finally the degree of redistribution of income effected by the general-government sector, as measured by the magnitude of taxation and current transfers to the private sector.

An Overall View

Table 1 presents the available data, using the first three standards of measurement, for general government and public enterprises in eleven countries, and it shows the shares in total gross fixed investment for one recent year. It must be borne in mind that for institutional and definitional reasons, the statistical measurement of the public-enterprise sector is subject to many pitfalls. Inter-country comparisons, in particular, are likely to be misleading because of large differences in coverage. The borderline between what is and what is not judged a public enterprise is somewhat arbitrary; and in some countries available statistics on the public-enterprise sector are incomplete in that not all the entrepreneurial undertakings of local authorities are included.[4]

Subject to these reservations, the figures suggest that public—sector consumption and investment absorb between 15 and 25 per cent of gross national product in all the countries shown. The size of the public sector measured in this way is 25 per cent in Sweden and probably larger still in Austria; it is between 20 per cent and 23 per cent in the Netherlands, the United Kingdom, Norway, France, Finland and probably also in western Germany,[5] with appreciably lower figures for Denmark and Belgium. In so far as figures are available (and it should be stressed that they are very incomplete), the size of the public sector in terms of its claim on the active population appears to fall within a much wider range than that just mentioned — from about 11 per cent in Belgium to 25 per cent in the United Kingdom.

Finally, the public sector evidently accounts for a very important share of total fixed investment — the component of demand which is a major determinant of the rate of overall growth — with ratios ranging

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[2] *Statistics of Sources and Uses of Finance, 1948-1958*, OEEC, 1960. Similar data are also published in the *Yearbook of National Accounts Statistics*, United Nations, but the OEEC data give a more detailed breakdown and contain figures for central government wherever available.

[3] These data have been presented in Appendix Tables III to XVIII. The economic activities of general government strictly speaking constitute a sub-sector, or segment, of the public sector; but for the sake of brevity they have been referred to here, and throughout what follows, as the general-government sector. The same applies, *mutatis mutandis*, to the central-government sector and the public-enterprise sector.

[4] See note to Table 1. The part of the public-enterprise sector not accounted for in the appropriate section of the table is not included in the government sector which — so far as is known — excludes all public-enterprise activities.

[5] Data for western Germany are incomplete: if data on public-enterprise investment had been available, this country would probably have ranked between Italy and Denmark.

TABLE 1

Indicators of the size of the public sector and its components in 1957 [a]

Percentages

GG = General government PE = Public enterprises

Country [b]		Share in gross national expenditure [c]	Share in factor income	Share in active population	Share in total gross fixed investment
Austria		24 [d]	..	..	44 [d]
	GG	18	10	..	17
	PE	6 [d]	..	8 [e]	27 [d]
Sweden		24 [f]	23	17	28 [f]
	GG	21	10	10	13
	PE	3 [f]	13	7	15 [f]
Netherlands		23	..	..	26
	GG	19	11	11	13
	PE	4	..	..	13
United Kingdom		22	24	25	42
	GG	18	10	11	10
	PE	4	14	14	32
Norway		22	18	..	23
	GG	15	9	..	9
	PE	7	9	..	14
France		21 [g]	18	..	35 [g]
	GG	16	8	..	10
	PE	5 [g]	10 [g]	7 [gh]	25 [g]
Finland		20	..	..	27
	GG	18	11	7	18
	PE	2	..	..	9
Italy		20 [i]	..	..	37 [i]
	GG	14 [i]	..	..	10 [i]
	PE	6 [i]	..	..	27 [i]
Denmark		17	15	13 [j]	24
	GG	15	10	9 [j]	12
	PE	2	5	4 [j]	12
Belgium		14 [g]	..	11 [k]	20 [g]
	GG	12	8	7 [k]	10
	PE	2 [g]	..	4 [k]	10 [g]
Western Germany		..	..	..	..
	GG	16	9	5 [l]	14 [m]
	PE	..	..	..	..

Sources and methods : See Appendix B.

NOTE. — Apart from the indicators of the size of the public-enterprise sector in Austria, Belgium, Italy, France and western Germany (referred to in the following notes) the data are believed to be fully or almost fully comprehensive. For further details, and for definitions, see section 4 of Chapter V, and Appendix B.

[a] Some of the data for Austria, Belgium, Denmark and France relate to a year other than 1957; see notes to the country figures.

[b] Excepting western Germany, countries are classified in descending order of the share of the public sector in gross national expenditure.

[c] For general government: general-government consumption (inclusive of defence) and gross investment. For public enterprises: gross investment.

[d] Excluding the enterprises owned by the nationalized banks.

[e] 1958. Excluding the enterprises owned by the nationalized banks and by local authorities.

[f] Data on enterprises partly owned by central or local government are included in terms of the percentage share-holding of the public authorities.

[g] Excluding some enterprises owned by the local authorities.

[h] 1956.

The source indicated in Appendix B does not allow a satisfactory breakdown of investment between general government and public enterprises. The figure for general government shown in the table is taken from Appendix Table XI a and that for public enterprises has been obtained as a residual.

[j] 1955.

[k] 1953.

[l] Percentage of the employed labour force.

[m] Including stocks.

from about 20 per cent in Belgium to some 25 per cent in Norway, Denmark, the Netherlands, Sweden and Finland; 35 per cent or above in France and Italy; more than 40 per cent in the United Kingdom; to as much as 45 per cent in Austria. As might be expected, in the majority of countries the investment of public enterprises is larger — and sometimes very much larger — than that of general government.

It must be remembered that the investment data for public enterprises in Table 1 are rather weak. They are believed to be fairly comprehensive for the United Kingdom, Denmark, Finland, Norway and Sweden, whereas for other countries they cover only part of the public-enterprise sector. Thus, for instance, the coverage of the data is broader in the United Kingdom than in Austria. Any ranking of countries must therefore remain tentative. There is enough evidence, however, to justify the statement that among the countries listed, the public-enterprise sector is largest in Austria and the United Kingdom and bigger in France and Italy than in the others.[6]

The General-government Sector in 1957

For the general-government sector in the countries of western and southern Europe, Chart 1 shows the relative levels of total taxation, the comparative importance of current transfers to the private sector and of consumption and investment, with all of these major receipt and expenditure categories [7] expressed in terms of gross national product.

Total current receipts range from as much as 35 per cent of gross national product in Austria, western Germany, Finland, and to 20 per cent or less in Greece, Portugal and Spain. Of the remaining countries, the Netherlands, France, Norway, Luxembourg, the United Kingdom and Sweden come closer to the upper limit and Denmark, Belgium and Ireland to the lower.

Current transfers to the private sector comprise a miscellaneous assortment of payments. Their common feature is that they put back into the income stream sums collected in taxes and other current receipts; and they are intended — apart from interest on the public debt — to relieve social hardships and to bring about more equitable income distribution. As can be seen from the chart, these transfers are relatively small in the low-taxation countries — such as Greece, Portugal and Spain — where they amount to 6 per cent or less

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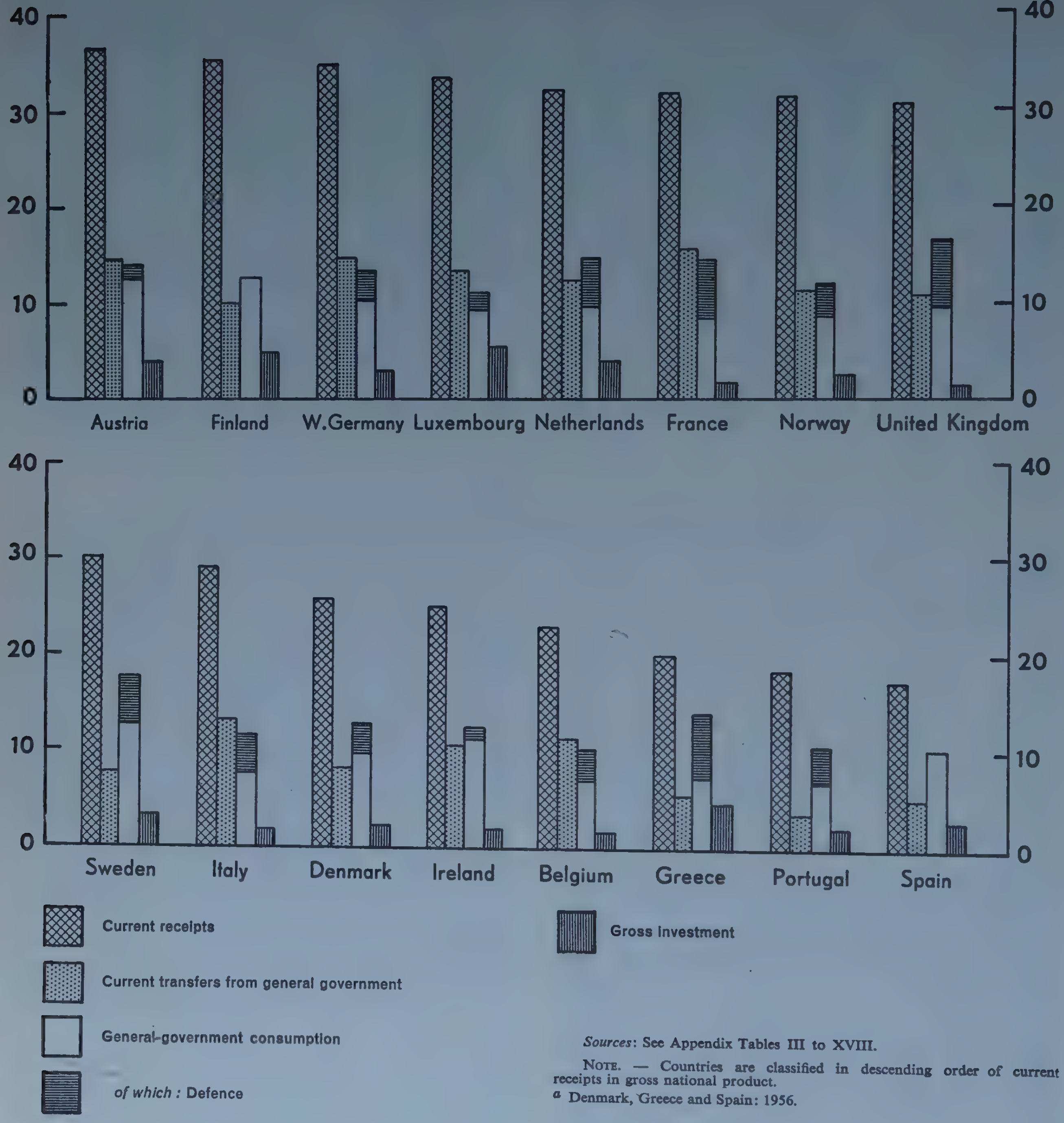
[6] Very high shares of public-enterprise investment in total investment are also found in some other countries of southern Europe, for instance Turkey and Spain. (See Chapter VII, section 3.)

[7] Consumption refers to current purchases of goods and services for civil uses (including depreciation of general-government fixed capital) and to current and capital expenditure for defence. Tax receipts and other current receipts include social security contributions paid by employers and employees for the part of social security arrangements defined in footnote 1.

CHART 1

Indicators of the size of the general-government sector in 1957 [a]

Percentages of gross national product



Sources: See Appendix Tables III to XVIII.

NOTE. — Countries are classified in descending order of current receipts in gross national product.

[a] Denmark, Greece and Spain: 1956.

of gross national product and to 30 per cent or less of total current expenditure. In the other countries transfers range from 8 to 15 per cent of gross national product or from 40 to over 50 per cent of total current expenditure.

Turning to expenditure on goods and services, outlays are seen to amount to between 12 and 20 per cent of gross national product with the low income countries and Belgium [8] in the lower range. Purchases of goods and services for public consumption vary between 10 and 18 per cent of gross national product; but these figures are blurred by the inclusion of

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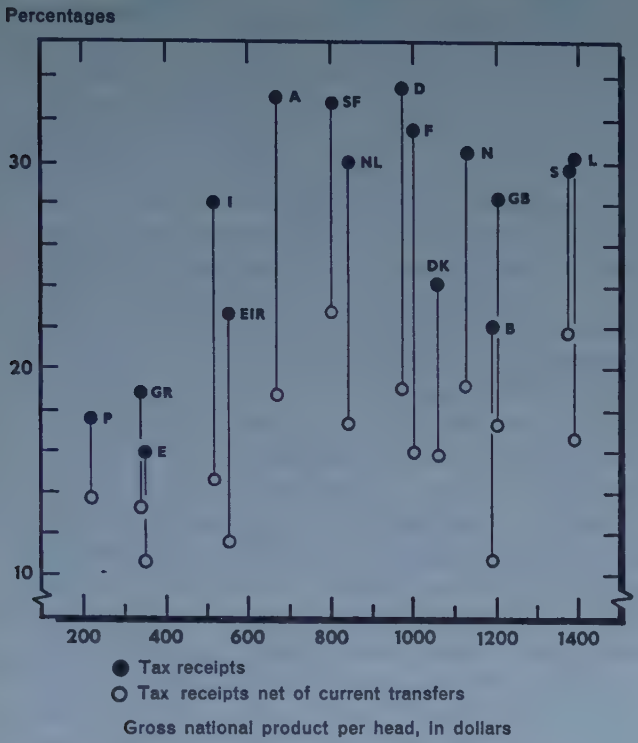
[8] Belgium is something of an exception to most of the generalizations in this section.

CHART 2

General-government tax receipts as percentages of gross national product and per capita income in 1957[a]



A	Austria	GR	Greece
B	Belgium	I	Italy
D	W. Germany	L	Luxembourg
DK	Denmark	N	Norway
E	Spain	NL	Netherlands
EIR	Ireland	P	Portugal
F	France	S	Sweden
GB	United Kingdom	SF	Finland

Sources : Tax receipts: see Appendix Tables. Gross national product per head: see footnote 10.

[a] 1956 for Denmark, Greece and Spain.

current and capital expenditure on defence, which differs widely between countries. General-government investment is relatively small, ranging between 1 and 4 per cent of gross national product everywhere save in Greece and Finland where it is slightly greater.

It has been suggested that the size of the general-government sector as measured by taxation and transfers is in some way significantly connected with the level of income per head.[9] Chart 2 shows the relationship in 1957 between income per head expressed in dollars,[10] total tax receipts, and tax receipts net of current transfers — all expressed as percentages of gross national product. There is a clear tendency for the share of taxation in the gross national product to be small in the low-income countries. It also appears that in the high-income countries (with incomes per head above some $600 per annum) the share of taxation is relatively larger than in the former group but that beyond a certain range of income it becomes somewhat less important again. However, if current transfers to the private sector are deducted from tax proceeds — the resultant figures are shown in the lower part of the chart — the observed relationship between taxation and income per head changes significantly. Net taxation is still lower in the low-income countries; but as transfers are larger in the richer countries, net taxation rises less in relation to income than gross taxation and the relative decline in the higher income ranges disappears altogether.[11] Broadly speaking, the chart suggests that there is a tendency for net, if not gross, taxation to increase with increasing levels of income. This finding, based on cross-section data, is confirmed by the historical data below.

The Long-term Development of the General-government Sector

The pattern of long-term growth of the government sector is illustrated for five countries by Chart 3. Since the comparability of such long-term data is rather uncertain, in particular with respect to tax receipts, and since the coverage is not the same for all countries, the chart is not suitable for an international comparison of levels but is significant from the point of view of changes over time.[12] In Norway and Sweden, and probably also in Italy, the government sector has tended to increase slowly ever since the sixties or seventies of the last century; and in the United Kingdom a significant rise took place about the turn of the century. The really important increases, however, came during or immediately after the first and second world wars. Both were followed during the years of reconstruction by a decline from the exceptionally high levels of wartime taxation and government consumption; but in each post-war period the long-term upward trend has been resumed from appreciably higher levels than those obtaining prior to the war, with taxes everywhere mounting more rapidly than government consumption.[13] (This des-

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[9] See, for instance, Alison M. Martin and W. A. Lewis: *Patterns of Public Revenue and Expenditure*, The Manchester School, September 1956, pp. 203-244.

[10] On the basis of gross national product and exchange rates in 1957. Owing to their more restricted geographical coverage than that used here the data given by M. Gilbert and associates in *Comparative National Products and Price Levels*, OEEC 1958, p. 28, were not used. If OEEC figures based on western European average prices had been used, the effect would have been to move the relative position of the Netherlands somewhat to the right.

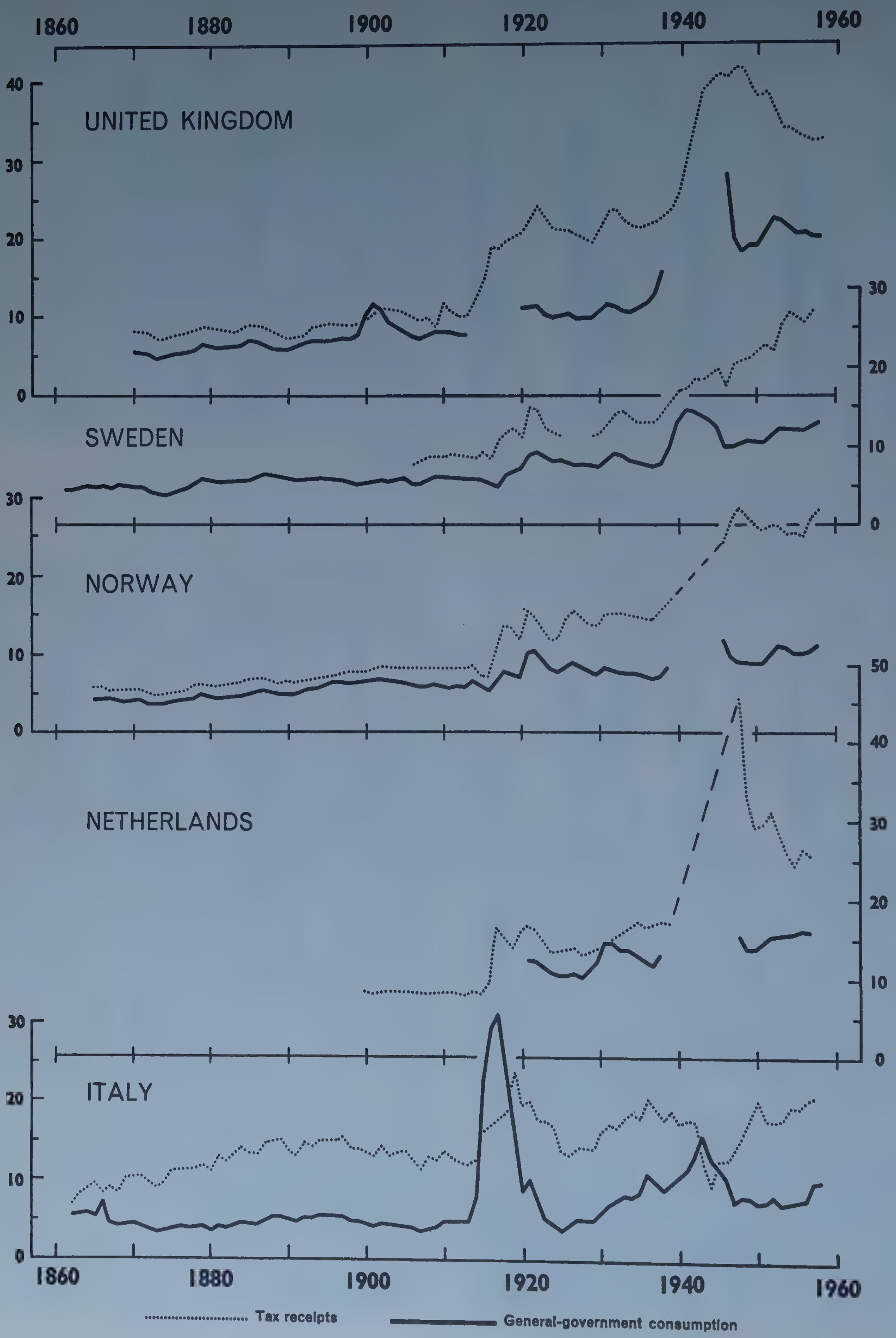
[11] In the United States and Canada, with incomes per head of $2,600 and $1,900 respectively, the shares of gross and net taxation in 1957 were 26 and 19 per cent and 24 and 15 per cent of gross national product. This may suggest that taxation possibly declines, or at least that the rate of increase levels off, in the higher ranges of income.

[12] As indicated in the note to the chart, the data relate to general government except for receipts in Italy, which relate to central government and include some extraordinary revenue.

[13] For some other countries, long-term data, which are not shown in the chart, since they refer to different budgetary items, reveal similar tendencies.

CHART 3. — The long-term development of the general-government sector, 1860 to 1957

Percentages of gross or net national product [a]



For notes see opposite page.

cription does not apply to the Swedish economy, which was only indirectly disturbed by these wars.)

In sum, the chart demonstrates that wars are instrumental in bringing about substantial and partly irreversible increases in the scope of government activities. In a sense, wars seem to have acted as powerful catalysts hastening a process which might otherwise have been far more protracted. But there has been an underlying tendency for the state to provide services over and above its traditional responsibilities for defence, justice and the preservation of order: the satisfaction of a growing range of wants which used to be satisfied individually has been gradually transferred to the state. To a large extent the growth of the government sector is the outcome of a change in ideas about the goals of social and economic policy, the form of economic organization, and the line of demarcation between the sphere of public and private decisions.

Will the long-term rate of expansion of the general-government sector continue in future? The short answer is that in the poorer countries of western Europe, which lag far behind other countries in terms of the size and scope of government activities, one might expect a further increase. For the other countries, where the government sector is already large, the answer will presumably hinge on the extent to which the expected advantages to be derived from a more comprehensive system of social security, and from decisions to satisfy a greater proportion of private needs collectively, are held to exceed the disadvantages attributed to higher taxation and to government control over a greater part of national income and expenditure. Such considerations have certainly generated resistance in some countries to any further growth of the government sector. On the other side of the balance is the desire for improved standards and quality of services, the extension of government activities which might arise in connexion with the development of new techniques requiring huge investment outlays and the growing requirements of education, technical training and scientific research. The future course of defence expenditure is, of course, entirely a matter of guesswork. For the foregoing reasons it would plainly be hazardous to venture any confident predictions on the future size of the general-government sector.[14]

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[14] However, from a projection of United States government expenditure to 1967, which gives a low and high alternative of requirements under the various headings of defence, education, welfare, public works and agricultural programmes and adjusts the total for estimated transfer payments, it would appear that under both assumptions government expenditure on goods and services at constant prices would rise faster than the gross national product if the latter is assumed to expand by 3 to 4 per cent per annum (see " The Challenge to America: Its Economic and Social Aspects ", Special Studies Project Report IV, Rockefeller Brothers Fund, New York 1958).

2. THE SIZE AND STRUCTURE OF THE GENERAL-GOVERNMENT SECTOR

The size of general-government operations in relation to gross national product in 1957 is presented in Table 2. The major categories of revenue and expenditure shown are: first, current receipts and current transfers, which affect the distribution of disposable incomes and hence the pattern of consumption and savings in the economy;[15] and second, expenditure on goods and services for consumption and investment as a measure of the direct utilization by the general-government sector of goods and services. The components subsumed by these categories, and the differing magnitudes of the latter from country to country, are briefly discussed below.[16]

In addition to what was already shown in Chart 1, three balances are struck in the table which are economically more meaningful than the traditional concepts of budget surpluses and deficits used in budgetary statistics. Disposable income — the excess of current receipts over current transfers — measures the net call made by the general-government sector on a country's current income and also the funds left at general-government command for current expenditure on goods and services. When general-government consumption is deducted from this amount, the residual is gross saving of the general-government sector. Savings figures for only one year are subject to the influence of cyclical factors. Table 3 therefore shows general-government gross saving for an average of post-war years both as a share of gross national product and of total saving. The figures reveal very wide divergences between countries; whereas general-government saving was negative in Belgium, it ranged between 15 and 30 per cent in most countries and amounted to more than one third of total gross saving over the period in Finland and Austria.

The savings surplus or deficiency measures the residual left at the disposal of the general-government

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[15] In the following discussion the concepts of current receipts and disposable income are gross of depreciation, except in Spain. See footnote *b* to Table 2.

[16] Year-to-year variations in central-government transactions are shown by components and by countries in Chart 1, Chapter VI.

Notes to Chart 3

Sources and Methods: See Appendix B.

NOTE. — Tax receipts for Italy refer to central government only and include some extraordinary revenue. Otherwise the data used in the chart relate to general government including local authorities. For further details, see Appendix B.

[a] Gross national product: Italy. Net national product: Netherlands and United Kingdom. Gross domestic product: Norway and Sweden.

TABLE 2

Current transactions, saving and investment of general and central government in 1957

Percentage of gross national product

A = General government B = Central government

Country [a]	1 Current receipts [b]		2 Current transfers		3 Disposable income [b] (1−2)		4 Consumption		5 Gross saving (3−4)		6 Gross investment		7 Saving surplus or deficiency (5−6)		8 Net capital transfers [c]	9 Net change in financial assets (7−8)
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	A
Austria	35.6	26.5	14.4	13.1	21.2	13.4	14.1	9.7	7.1	3.7	3.8	1.3	3.3	2.4	1.6	1.7
Finland [d]	35.4	..	10.0	..	25.4	..	13.1	..	12.3	..	4.8	..	7.5	..	2.5	5.0
Western Germany	35.3	..	14.6	..	20.7	..	13.4	..	7.3	..	3.1	..	4.2	..	0.3	3.9
Luxembourg	33.3	29.0	13.5	13.0	19.8	16.0	11.3	8.3	8.5	7.7	5.4	2.5	3.1	5.2	1.3	1.8
Netherlands	32.2	30.3	12.6	17.7	19.6	12.6	15.0	8.5	4.6	4.1	4.0	1.3	0.6	2.8	1.0	−0.4
France	31.8	28.8	15.7	14.4	16.1	14.4	14.6	11.8	1.5	2.6	1.8	0.5	−0.3	2.1	2.6	−2.9
Norway	31.2	22.8	11.3	10.8	19.9	12.0	12.2	7.2	7.7	4.8	2.5	0.7	5.2	4.1	1.0	4.2
United Kingdom	30.7	26.5	11.0	12.4	19.7	14.1	16.6	11.8	3.1	2.3	1.4	0.4	1.7	1.9	1.7	—
Sweden [d]	30.2	20.8	7.9	10.4	22.3	10.4	17.6	8.7	4.7	1.7	3.5	0.8	1.2	0.9	−0.2	1.4
Italy	29.2	25.3	13.5	13.4	15.7	11.9	11.7	8.2	4.0	3.7	1.9	0.6	2.1	3.1	2.0	0.1
Denmark [e]	25.8	..	8.3	..	17.5	..	12.9	..	4.6	..	2.2	..	2.4	..	0.6	1.8
Ireland	25.3	21.1	11.0	13.0	14.3	8.1	12.5	6.9	1.8	1.2	2.0	0.6	−0.2	0.6	2.2	−2.4
Belgium	22.8	21.4	11.5	12.3	11.3	9.1	10.3	6.7	1.0	2.4	1.8	0.8	−0.8	1.6	..	−0.8
Greece [e]	20.2	18.6	5.6	5.3	14.6	13.3	14.3	12.5	0.3	0.8	4.7	3.0	−4.4	−2.2	−3.1	−1.3
Portugal	18.5	16.7	3.8	4.0	14.7	12.7	11.0	9.7	3.7	3.0	2.1	1.3	1.6	1.7	−0.5	2.1
Spain [e]	17.1	..	5.3	..	11.8	..	10.4	..	1.4 [f]	..	2.9	..	..	..	..	..

Sources and methods : Appendix Tables III to XVIII, and Appendix B.

[a] In descending order of the share of current receipts of general government in gross national product.

[b] For all countries except Spain, data on current receipts (and hence disposable income) are inflated by the inclusion of general-government income in gross terms — i.e., depreciation of general-government real capital has not been deducted in computing this item.

[c] Net capital transfers from (+) or to (—) general government.

[d] Current receipts and current transfers are net of interest on public debt.

[e] 1956.

[f] Net saving; see footnote *b*.

TABLE 3

Gross saving of general government during the period 1950-1958 [a]

Country [b]	As percentage of gross national product	As percentage of total gross saving
Finland [c]	12.1	45
Austria	7.3	35
Western Germany	7.2	27
Luxembourg [d]	7.9	26
Norway	7.0	26
Portugal [d]	2.9	25
Netherlands	5.7	23
Denmark [e]	3.9	22
Sweden	4.8	22
United Kingdom	2.9	18
Italy [f]	3.8	18
Ireland [g]	1.5	14
France [h]	2.4	13
Greece	0.6	7
Belgium	−0.7	−4
Spain [i]	2.2	21

Sources : Appendix Tables III to XVIII. For total gross saving: OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960, except for Austria, Finland and Spain for which the national sources indicated in the appendix tables were used.

[a] Percentages have been computed on the basis of the cumulated totals over the period of gross national product and of gross saving.

[b] Excepting Spain, countries are classified in descending order of the share of general-government gross saving in total gross saving.

[c] 1951-1957. [d] 1952-1957. [e] 1950-1956. [f] 1955-1958. [g] 1954-1958. [h] 1954-1957. [i] 1954-1956. Calculated net of depreciation.

sector after investment expenditure has been covered. This residual is available for making capital transfers in excess of similar receipts [17] and for financing the capital loans extended by general government to the rest of the economy and the outside world. Any excess of such transactions over the savings surplus determines the amount which general government needs to raise by borrowing.

Current Receipts

Differences among countries in respect of total tax receipts have already been shown in Chart 1 and referred to in the preceding section. Comparison of the sources of revenue reveals the important share of indirect taxation in total government receipts; it is everywhere in the range of 30 to almost 70 per cent (see Table 4). When the revenue from direct and indirect taxation respectively is compared, it is seen that in the

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[17] Capital transfers include all unilateral payments which in general are not considered by the recipient (or payer) as contributing to (or reducing) his current income. By convention, these transactions cover, among government and similar revenue, such items as death duties, gift taxes, capital levies, confiscation measures and, among government outlay, such items as grants for investment purposes, compensation for war damages, etc. See *A Standardized System of National Accounts, 1958*, OEEC p. 89.

TABLE 4

Tax receipts and other current revenue of general government in 1957

A = Percentage of gross national product *B = Percentage distribution*

Country [a]		Direct taxes			Social security contributions	Indirect taxes	Income from property and entrepreneurship [b]	Net current transfers from (+) or to (−) abroad	Total
		Households	Corporations	Total					
Austria	A	10.3	2.3	12.6	6.9	13.7	2.2	0.2	35.6
	B	28.8	6.5	35.3	19.3	38.5	6.5	0.4	100.0
Finland	A	..	..	14.7	2.7	15.5	2.7 [c]	−0.2	35.4
	B	..	..	41.5	7.6	43.6	7.8 [c]	−0.5	100.0
Western Germany	A	6.2	3.3	9.5	9.4	14.7	2.7	−1.0	35.3
	B	17.6	9.2	26.8	26.7	41.8	7.6	−2.9	100.0
Luxembourg	A	7.1	5.7	12.8	8.0	9.4	3.1	—	33.3
	B	21.4	17.1	38.5	23.9	28.2	9.5	−0.1	100.0
Netherlands	A	8.8	3.8	12.6	7.5	10.0	2.2	−0.1	32.2
	B	27.2	11.8	39.0	23.3	31.1	6.9	−0.3	100.0
France	A	3.4	2.2	5.6	9.2	16.9	0.6	−0.5	31.8
	B	10.6	7.1	17.7	28.8	53.2	1.9	−1.6	100.0
Norway	A	11.5	3.1	14.6	2.4	13.5	0.8	−0.1	31.2
	B	36.9	9.8	46.7	7.7	43.3	2.4	−0.1	100.0
United Kingdom	A	7.5	4.3	11.8	3.0	13.5	2.6	−0.2	30.7
	B	24.4	14.0	38.4	9.8	43.9	8.5	−0.6	100.0
Sweden	A	13.9	3.6	17.5	2.8	9.4	0.6 [c]	−0.1	30.2
	B	45.9	11.9	57.8	9.3	31.1	2.1 [c]	−0.3	100.0
Italy	A	..	..	5.8	8.5	13.8	1.2	−0.1	29.2
	B	..	..	20.0	29.1	47.1	4.1	−0.3	100.0
Denmark [d]	A	10.2	1.3	11.5	1.3	11.4	1.6	—	25.8
	B	39.3	5.2	44.5	5.0	43.9	6.6	—	100.0
Ireland	A	2.9	2.0	4.9	1.0	16.8	2.6	—	25.3
	B	11.4	8.1	19.5	4.1	66.2	10.3	−0.1	100.0
Belgium	A	5.0	2.0	7.0	6.0	9.2	0.6	—	22.8
	B	21.9	8.8	30.7	26.4	40.3	2.6	—	100.0
Greece [d]	A	2.1	1.6	3.7	3.8	11.4	0.8	0.5	20.2
	B	10.4	8.1	18.5	18.8	56.6	3.9	2.2	100.0
Portugal	A	1.7	3.7	5.4	3.7	8.5	0.9	—	18.5
	B	9.2	20.1	29.3	19.8	46.0	4.8	0.1	100.0
Spain [d]	A	1.6	2.7	4.3	3.1	8.6	0.9	0.2	17.1
	B	9.2	15.8	25.0	18.0	50.2	5.3	1.5	100.0
Switzerland	A	..	..	7.7	2.2	6.2	..	..	..

Sources and methods : Appendix Tables III to XVIII, and Appendix B.

[a] With the exception of Switzerland, in descending order of the share of current receipts of general government in gross national product.

[b] Gross of depreciation; see footnote *b*, Table 2.

[c] Net of interest on government debt.

[d] 1956.

high-tax countries both account for more or less equal shares of total tax receipts. There are, however, three major exceptions to this generalization: Sweden, with the highest direct-tax revenue of any country (close to 18 per cent of gross national product or 60 per cent of total government current receipts) where indirect taxation is relatively low;[18] and western Germany and France where, in contrast, indirect taxation furnishes a much higher share of total receipts than direct taxa-

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[18] The recent introduction of a 4 per cent general purchase tax will, of course, bring the tax structure of Sweden more into line with that of the other countries in this respect.

TABLE 5

Current transfers from general government in 1957

A = Percentage of gross national product   *B = Percentage distribution*

Country [a]		Interest on public debt	Social security benefits	Subsidies	Other current transfers	Total	Percentage of total current expenditure
Austria	A	0.5	5.2	1.7	7.0	14.4	51
	B	4.0	35.8	11.9	48.3	100.0	
Finland	A	[d]	7.1 [b]	2.9	[c]	10.0	43
	B	[d]	71.2 [b]	28.8	[c]	100.0	
Western Germany	A	0.6	13.2 [b]	0.8	[c]	14.6	52
	B	4.0	90.7 [b]	5.3	[c]	100.0	
Luxembourg	A	1.0	8.8	1.9	1.8	13.5	55
	B	7.2	65.6	13.7	13.5	100.0	
Netherlands	A	2.3	6.6	1.8	1.9	12.6	46
	B	18.2	52.5	14.6	14.7	100.0	
France	A	1.4	10.2	1.9	2.2	15.7	52
	B	9.1	65.0	12.2	13.7	100.0	
Norway	A	1.0	5.9 [b]	4.4	[c]	11.3	48
	B	8.9	52.3 [b]	38.8	[c]	100.0	
United Kingdom	A	3.6	2.8	1.9	2.7	11.0	40
	B	32.5	25.8	17.0	24.7	100.0	
Sweden	A	[d]	5.7	1.2	1.0	7.9	31
	B	[d]	73.2	14.3	12.5	100.0	
Italy	A	1.7	7.6	1.4	2.8	13.5	54
	B	12.9	56.2	10.3	20.6	100.0	
Denmark [e]	A	1.4	6.6 [b]	0.3	[c]	8.3	39
	B	16.7	80.0 [b]	3.3	[c]	100.0	
Ireland	A	2.5	1.7	1.9	4.9	11.0	47
	B	23.0	15.8	17.4	43.8	100.0	
Belgium	A	2.0	6.7	1.3	1.5	11.5	53
	B	17.1	58.2	11.4	13.3	100.0	
Greece [e]	A	0.1	3.6	0.2	1.7	5.6	28
	B	1.7	63.9	3.0	31.4	100.0	
Portugal	A	0.5	2.2	1.3	−0.2	3.8	26
	B	13.0	56.4	34.8	−4.2	100.0	
Spain [e]	A	2.1	3.2 [b]	—	[c]	5.3	34
	B	39.3	60.7 [b]	—	[c]	100.0	

Sources : Appendix Tables III to XVIII.

[a] In descending order of the share of current receipts of general government in gross national product.

[b] Including other current transfers.

[c] Included in social security benefits.

[d] Deducted from income from property and entrepreneurship.

[e] 1956.

tion — indeed indirect taxation in France accounts for a higher share of gross national product than in any other country. On the other hand, in poorer and low-taxation countries such as Ireland, Greece, Portugal and Spain the contribution made by direct taxation is small, whereas receipts from indirect taxes provide between 50 and nearly 70 per cent of total current receipts.

Even when no allowance is made for that part of social security contributions which is paid by wage and salary earners, the proportion of total tax receipts arising from direct taxation in the richer countries is substantially higher than that derived from corporate taxes — again with the exception of France. The differences within this group of countries in the proportion of receipts from corporate taxes are determined by a number of factors: the relative size of the corporate sector; comparative income levels; rates of tax and taxation rules. No conclusions concerning the relative burden of corporate taxation in the various countries can therefore be drawn from the table. The importance of corporate-tax receipts in the United Kingdom is possibly the result of the size of the corporate sector, though the reverse may be true of Austria, Belgium, Denmark and France.

It may at first sight appear surprising that in the southern European countries shown in the table receipts from corporate taxes are higher than those from personal taxation. This can probably be ascribed to inadequate machinery for the collection of personal taxes and to the possibility of tax evasion, with consequently greater reliance than elsewhere on taxes paid by a few key industries and on taxes on consumption.

The rôle social security contributions have come to play in total general-government revenue is signalized by the table. These payments now amount to between 20 and 30 per cent of current receipts and between 6 and 9 per cent of gross national product in Austria, Belgium, western Germany, France, Italy, the Netherlands and Luxembourg. In France and Italy they are very much higher than receipts from direct taxation; but in Norway, Sweden and the United Kingdom they are far less important (between 8 and 10 per cent of total receipts and 2 and 3 per cent of gross national product — and they are even less important in Denmark) since high progressiveness is aimed at in the overall tax structure in these countries and social security contributions are mostly non-progressive.[19]

Current Transfers of General Government

Of the two major components of general-government current expenditure — transfer payments and public consumption — transfers are the larger in Austria, western Germany, France, Italy, Belgium and Luxembourg (see Table 5). In the remaining countries they constitute between 40 and 50 per cent of total current expenditure, the major exceptions being the smaller southern European countries where the share of transfers is considerably smaller. The comparatively low share of transfer payments in the United Kingdom is a counterpart of the relatively heavy burden of defence outlays (see Table 6).

Two opposite tendencies have affected the course of transfer payments to the private sector since before the last war: in one direction, the increasing responsibility assumed by governments for social security and other social services, family allowances, the care for war victims, etc.; and, in the other, the declining burden of interest payments on public debt.

Social-security benefit payments vary greatly in importance from country to country. This is accounted for partly by the inclusion, in some of the countries shown in Table 5, of " other current transfers " in social security benefits and partly by the conventional and arbitrary definition of social security operations. When the statistical, but not the definitional, differences are taken into account, western Germany would still appear to rank, together with France, Italy, Belgium and Luxembourg, among the countries with the highest social security payments.[20] These high levels are due largely to generous provisions for pensions in western Germany and family allowances in France, whereas in Italy and Belgium unemployment benefits are partly responsible for their large disbursements. As was pointed out above, the very large differences in social security payments have as their counterpart similar differences in social security contributions. However, the real differences between countries in this respect are probably smaller than the figures suggest, since benefits which in some countries are channelled through social insurance schemes appear as " other transfers ", covered by taxation, in others.[21]

Inflation, the growth of national income, and the conversion of the public debt to lower interest levels in the earlier post-war period have resulted in most countries in a substantial reduction of the public-debt interest burden. Only in the United Kingdom, Ireland, the Netherlands, Spain and Belgium do government interest payments on the public debt exceed 2 per cent of the gross national product, and in no country do

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[19] These data cannot be used to draw conclusions about the income-equalization effect of taxation systems without a much fuller inquiry than could be undertaken here.

[20] The low figures for the United Kingdom can be explained by the exclusion from social security benefits of family allowances, national health insurance and various assistance grants.

[21] The distinction between social security benefit payments and " other current transfers " is not very clear even in theory. According to the *Standardized System of National Accounts*, OEEC, " other current transfers " include payments to demobilized members of the armed forces, war pensions and service grants, and grants to non-profit-making institutions and associations not included under social security benefits. The particularly high Austrian figure is explained by the inclusion in this item of civil servants' pensions, unemployment benefits, and family allowances.

TABLE 6

Consumption of general government in 1948 and 1957

Country[a]	*Consumption as percentage of gross national product*					*Defence in 1957*	
	1948		1957[b]				
	Total	*of which:* Civil	Total	Civil	Defence	As percentage of total government consumption	As percentage of total current expenditure
Sweden	13.5	9.9	17.6	12.6	5.0	28	20
United Kingdom	14.8	8.6	16.6	9.5	7.1	43	26
France	12.3[c]	..	15.3[d]	8.5	6.8	45	22
Netherlands	14.0	9.7	15.0	9.9	5.1	34	18
Austria	12.5	11.1	14.1	12.7	1.4	10	5
Western Germany	14.8[e]	10.3[e]	13.4	10.3	3.1	23	11
Greece	14.3	7.4	13.4	7.8	5.6	42	30
Finland	..	..	13.1	..	..	..	..
Denmark	11.3	9.4	12.8	10.0	2.8	22	..
Ireland	11.7	10.4	12.5	..	..	..	..
Norway	10.5	7.9[f]	12.2	8.8	3.4	28	15
Italy	12.1	8.2	11.7	7.8	3.9	33	15
Luxembourg	12.3[c]	11.5[c]	11.3	9.5	1.8	16	7
Turkey	13.4	7.3	11.1	8.0	3.1	28	..
Portugal	..	..	11.0	7.2	3.8	34	26
Belgium	9.4[c]	7.1[c]	10.3	7.0	3.3	32	15
Spain	..	..	10.4	..	..	..	..

Sources: Appendix Tables III to XVIII. For Austria, Ireland, Italy in 1948; Luxembourg in 1949; France in 1949 and 1957; and Turkey in 1948 and 1956—OEEC, *General Statistics*, July 1959.

[a] In descending order of total consumption in gross national product in 1957.

[b] For Turkey and Spain, 1956.

[c] 1949.

[d] Owing to the different source used, this percentage is slightly different from that shown in Table 2.

[e] 1950.

[f] Direct communication from Norway.

they amount to more than 12 per cent of current receipts. This is in marked contrast to the pre-war situation, when interest on the public debt placed a considerable strain on government finances in a number of countries and greatly restricted their freedom of manoeuvre with regard to other government expenditure.

Virtually all countries have at some stage during the post-war period made more or less substantial use of subsidies for checking price inflation and assisting particular groups of consumers or specific sectors of the economy — especially agriculture and public enterprises. Norway, Finland and Ireland are the countries which in 1957 utilized such subsidies to the greatest extent. In some countries subsidies have been found difficult to reduce or abolish in the short run once they have become part of the price structure and this has introduced a new element of rigidity into government expenditure in place of that previously constituted by government interest payments. In nine of the fifteen countries listed, subsidy payments in 1957 took a greater share of government expenditure than interest on the public debt.

General-government Expenditure on Goods and Services

As has been shown in section 1, total general-government consumption in western Europe ranges between 10 and 18 per cent of gross national product, the highest shares being found in Sweden, the United Kingdom, France, the Netherlands, and Greece. Defence expenditure does not fall much short of civil consumption in the United Kingdom, France, and Greece; but it constitutes only a relatively small proportion of the total in western Germany, Denmark, Luxembourg, Austria, and Ireland (see Table 6). With about 13 per cent of gross national product, civil consumption is largest in Austria and Sweden. In the other countries its share amounts to between 7 and 10 per cent — a very much narrower range than the considerable spread in tax receipts (thus largely attributable to transfer payments) would suggest.

Table 2 shows that general-government investment is generally only of the order of 2 to 4 per cent of gross national product with the United Kingdom below, and Luxembourg, Finland and Greece somewhat above these limits. And it is clear that investment is a relatively small proportion of general-government expenditure in all the countries of western Europe, amounting for the most part to one-fifth or less. The inclusion of investment expenditure for the purpose of comparison does not, therefore, materially alter the relative importance in the various countries of the general-government sector as measured by the size of general-government consumption.

TABLE 7

Structure of general-government civil expenditure on goods and services in Norway, Sweden and the United Kingdom

Country	General-government current expenditure on goods and services				General-government gross investment			
	Percentage distribution			Percentage share of local authorities in total	Percentage distribution			Percentage share of local authorities in total
	Total general government	Central government	Local authorities		Total general government	Central government	Local authorities	
Norway 1957 [a]								
Administration	23	23	22	47	1	3	1	38
Police and justice	7	16	—	2	1	1	—	—
Education and research	34	20	45	76	21	7	28	89
Social services	6	6	6	59	6	5	6	70
Health	4	6	3	46				
Church	2	2	3	63	1	1	2	73
Roads and traffic regulations, water, sewerage	15	18	12	49	57	76	47	54
Other	9	9	9	57	13	7	16	81
	100	100	100	58	100	100	100	66
Sweden 1956								
Administration	12	23	8	45	5	—	7	99
Police and justice	7	10	6	60	1	1	1	64
Education	32	22	36	80	20	2	27	97
Social services	9	4	11	87	6	4	7	82
Health	25	19	28	79	12	1	16	98
Church, etc.	5	1	6	95	5	—	8	100
Basic community services (including roads, streets, sewerage, etc.)	8	9	8	69	50	90	34	50
Other	4	12	—	—	1	2	—	—
	102	100	103					
Less corrections	2	—	3					
	100	100	100	71	100	100	100	72
United Kingdom 1957 [b]								
Administration	7	13	1	6	—	—	—	—
Police and justice	7	5	7	61	3	3	3	78
Education and child care	28	1 [c]	54	98	42	—	54	100
Social services	4	7	2	24	2	—	2	100
Health	33	60	7	11	9	37	1	11
Industry and trade	3	7	—	—	4	15	—	—
Provision of basic services [d]	11	1	21	97	28	19	31	85
Other	7	6	8	59	12	26	9	50
	100	100	100	52	100	100	100	78

Sources: Norway: Direct communication from the Central Bureau of Statistics of Norway; Sweden: Konjunkturinstitutet, *Nationalbokföringf för Sverige, 1938/39, 1946-1958*, Stockholm 1959, pp. 17-18; and United Kingdom: Central Statistical Office, *National Income and Expenditure, 1959*, HMSO, 1959.

[a] Data are for general-government consumption.

[b] Excluding trading services.

[c] Central-government expenditure on education largely takes the form of grants to local authorities.

[d] Roads, public lighting, fire services, sewerage, etc.

From the point of view of assessing the possibility of deliberately varying budgetary expenditure it is well worth while to have some idea of the composition of general-government expenditure on goods and services. Table 7 presents a breakdown into broad categories of general-government current and capital civil expenditure in the United Kingdom, Sweden and Norway.[22] For Belgium and the Netherlands a similar breakdown is available only for central government.[23]

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[22] For Norway the figures are for general-government consumption.

[23] Apart from the data for Belgium and the Netherlands, which are classified on a comparable basis, differences in coverage of the various categories shown and different forms of organization of health services render the comparisons rather tentative.

Structure of central-government civil consumption in Belgium and the Netherlands

Percentage distribution

	Belgium (1957)	*Netherlands (1956)*
General administration	20	17
Justice and police	12	9
Health and social services	3	9
Education, culture and church	40	36
Transport and communications	5	10
Agriculture and forestry	2	5
Industry and trade	4	2
War damages	2	1
Depreciation	12	11
	100	100

Sources: Belgium: Ministère des Finances, Service d'Etude et de Documentation, *Bulletin de Documentation,* Numéro spécial (automne 1959). Netherlands: Benelux, *Etude comparative des budgets belges, néerlandais et luxembourgeois, 1955-1958,* Brussels.

One common feature of the countries considered is their relatively small outlay on administration. This item absorbs just over 20 per cent of general-government consumption in Norway as opposed to 12 and 7 per cent of general-government current expenditure on goods and services in Sweden and the United Kingdom respectively.[24] A second feature brought out by the figures is that the bulk of general-government current expenditure on goods and services is devoted to education, health, and social services: these three categories account for about two-thirds in Sweden and the United Kingdom and not far short of one-half in Norway. The corresponding central-government expenditure ranges from one-third in Norway to two-thirds in the United Kingdom; in Sweden, Belgium and the Netherlands they account for about 45 per cent of the total.

General-government investment is heavily concentrated in two broad categories: the construction of roads and investment for the provision of basic services on the one hand; and construction for educational purposes on the other. These categories account for some two-thirds of total investment expenditure in Sweden and the United Kingdom, and for more than three-fourths in Norway. So far as it is specified, the remainder consists largely of investments related to health and social services.[25]

The Local-government Sector

Marked differences in the relative importance of the local and central-government sectors exist among western European countries, as is shown in Table 8. The share of local government in total expenditure ranges from over two-thirds in Switzerland and one-half in western Germany — both countries with a

TABLE 8

Indicators of the share of local government in general-government expenditure in 1957 [a]

Percentages of general government

Country [b]	1 Consumption	2 Investment	3 Expenditure on goods and services 1+2	4 Current transfers	5 Total expenditure 3+4	6 Percentage share in general-government disposable income [c]
Switzerland [d]	..	..	..	..	67	..
Western Germany [e]	..	..	..	..	55	..
Sweden	51	77	55	1	40	53
Netherlands	44	66	48	11	33	36
Norway	41	71	46	5	28	39
Austria	31	65	39	8	25	37
United Kingdom	29	72	33	9	24	28
Belgium	35	55	38	5	22	20
Italy	30	67	35	3	19	24
France	19	72	25	8	17	11
Greece	13	37	19	6	16	9
Portugal	12	36	16	—	12	13

Sources: Appendix Tables III to XVIII, except for Belgium, western Germany and Switzerland, for which national sources were used.

[a] Data for Greece relate to 1956.

[b] In descending order of the share of local authorities in total expenditure by general government (column 5).

[c] Local-government disposable income inclusive of current transfers from the central government.

[d] *Cantons* and *communes.*

[e] *Länder* and *Gemeinden,* including west Berlin.

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[24] Differences in the definitions used may, however, be partly responsible for this wide range.

[25] The data given in Tables 2 and 8 do not include general-government construction of dwellings, which — according to the national accounts classification — falls outside general-government investment, but is included in enterprise investment. Some reference is made to the influence exerted by the government sector on the level of housebuilding in section 1 of Chapter VI.

federal constitution — to 18 per cent and less in Belgium, France, Greece and Portugal. Nowhere are local authorities responsible for more than a negligible part of current transfers to the private sector. Nor (apart from Sweden) are they predominant in general-government consumption.[26] But their share in general-government investment amounts to two-thirds or more in all the countries shown except Belgium, Greece and Portugal.

From the breakdown of local-government consumption into main activities, as shown in Table 7, it will be seen that a large or preponderant responsibility for education is vested in local authorities in the three countries presented, though the almost complete responsibility of local government in this field in the United Kingdom is exceptional.[27] The major part of national health services is managed by local authorities in the two Scandinavian countries, whereas in the United Kingdom these are almost entirely provided by the central government.

Among the major investment responsibilities of local authorities are the building and upkeep of roads and the provision of other basic communal facilities and the building of schools. These categories of investment activity account for upwards of 60 per cent of the total.

Whatever the relative size of expenditure on goods and services formally undertaken by local authorities, it should be remembered that the differences between countries in the division of responsibilities between central and local government are less relevant for policy than the manner in which local authorities finance their expenditure and the institutional setting governing relations between central and local authorities in the various countries. These issues are dealt with in some detail in section 3.

3. INSTITUTIONAL CHARACTERISTICS OF THE GENERAL-GOVERNMENT SECTOR

How far does the institutional setting of the public sector affect its suitability or effectiveness as a rudder by which the course of economic activity in the short run can be steered if government so chooses ? In the present section an attempt is made to answer this question by assessing both the degree of central-government control over public sector activity,[28] and the speed with which central-government policy decisions can be implemented.

The meaning attached in the following discussion to the term " central-government control " calls for some explanation at the outset. It refers not merely to what might be called " supervisory ", or passive control (i.e., the supervision exercised by the central authorities as no more than the auditors of the reports submitted by the constituent units of the public sector), but also, and more importantly, to the extent to which the policy-framing branch of government can use the public sector to pilot the economy in the short run by restraining or stimulating its activity. Another important issue is, of course, the promptness with which changes can be effected.

The discussion is confined to the types and channels of authority existing within the public sector and those measures which directly affect the functioning of the public sector; it does not deal with those controls and regulations that apply to the private sector and the public sector alike. But it should be remembered that the conclusions reached do not apply with equal force to those countries where certain types of public sector activity are centrally controlled through general measures such as building controls and raw material licensing.[29] Law and convention determining the degree of co-ordination of budgetary with monetary and credit policy are examined only in so far as they relate to the ease or difficulty of financing a budget deficit.

Even an institutional framework allowing a high degree of flexibility of policy implementation would not offset the drawbacks for the central government of inadequate information about public sector operations and their impact on current economic conditions. The extent to which central governments are well informed in this respect needs to be considered before it is possible to discuss the formulation of public sector policy. The present section therefore sets out to study this and other aspects of budget documentation of importance for the conduct of an active budgetary policy.

The Central-government Budget

The role of the budget [30] has signally changed since the inter-war period: once almost exclusively the means of legislative and executive control over the disbursement of public funds, the budget now also serves as the framework within which the financial programme of the central government is devised and put into effect. This change has been brought about by the central government's assumption of more far-reaching responsibilities and by the growing recognition of the implications of the budget for the economy. Both developments have underlined the need for modifying the formal arrangements and content of the budget document. The extent of the reforms and adjustments undertaken in different countries is not uniform; it has been governed both by functions conventionally assigned to the budget and, in some measure, by government economic policy in general. The Scandinavian countries and the Netherlands were among the first to begin and have made considerable progress in adapting the presentation of the budget to policy requirements.

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[26] No figures for local-government consumption are available for Switzerland and western Germany.

[27] In France and Italy, for instance, only some 5 and 10 per cent respectively of total local-government expenditure are devoted to meeting educational needs.

[28] The institutional framework of the public-enterprise sector is discussed in the following section and is not considered here.

[29] Some light is thrown on the scope of control provided by general regulations in the discussion in Chapter VI of the policies pursued in selected western European countries.

[30] Whenever the term " budget " is used in the following discussion, it refers to the central-government budget.

The reforms undertaken have been dominated by two purposes: one has been to make the budget a comprehensive aggregate encompassing all government transactions; and the other has been to provide fuller and more meaningful budgetary data and documentation for the framing of economic policy. Existing arrangements are discussed here in order to estimate how far they facilitate the achievement of these objectives.

Comprehensiveness of the Budget. Various public funds not appearing in the budget were set up prior to and during the last war. Such funds include moneys held in trust (e.g. the local-government share in central-government revenue from taxation), social insurance funds, and those of government trading and industrial activity. This separation from normal government transactions has been justified on economic or legal grounds. In addition to this type, however, funds have been created and ear-marked for specific, purely administrative tasks. Special requirements arising during war-time contributed to their multiplication, although many were set up at other times — sometimes as an expedient for assuring the continuity of a programme thought particularly important by the executive.[31] The permanent assignment of proceeds of earmarked taxes to such special funds and the partial or complete exclusion from the budget of such revenue (and of other information pertaining to their operation) was believed to secure such continuity.

From the point of view of policy it is immaterial whether, for example, an unemployment insurance fund is established separately from the budget — provided that those who frame policy have ample information about transfers to and from it (both from the central budget and other sources) and that this and other relevant information makes readily possible the appraisal of the significance for stabilization policy of the fund in question. Two facets of post-war practice in western European countries are especially important in this respect: first, information on special funds has gradually been incorporated in the budget document by presenting in it the net result of operations and government transfers and publishing fuller accounts in budget annexes; and second, the number of these funds has been reduced.[32]

Although there are still in most countries public organizations whose income and expenditure are not shown in the budget, they no longer seem to constitute a major problem of central-government budgeting — except possibly in some southern European countries. Spain may serve as an example: there, the accounts of a thousand or so autonomous public organizations, covering a wide range of diverse activities, do not appear in detail in the central-government budget. The fiscal reform passed in 1958 facilitated closer government supervision of their accounts, but did not complete the process of bringing them into the central-government budget.[33]

Besides legal reforms and tighter regulations, the more scrupulous observation of existing rules has contributed to increasing the comprehensiveness of the central-government budget. It has happened in the past — though this is now rare — that certain transactions have been so presented in (or even excluded from) the budget as to obscure the true magnitude of the budget balance. The treatment of the post-war capital levy in Norway is a case in point. The proceeds of this levy have never been recorded in the budget; nor was any entry made of the proceeds of the " war damage levy " collected in the early post-war period until they were drawn on to finance government expenditure.

Budget Presentation. The growing social and economic responsibilities of government and the recognition of the potentialities of budgetary policy have modified the presentation of the central-government budget; and much progress has been made in elaborating new forms of presentation in keeping with the changed requirements. Neither the formal arrangements of the traditional budget, nor the administrative methods of its presentation and execution, have as a rule been greatly modified. Improvements in presentation have largely consisted in the preparation of accounts or statistical statements supplementing the budget and facilitating an analysis of the economic effects of government actions. These supplementary accounts or statements are normally drawn up with reference to a fairly standardized classification by economic and functional criteria. But this is in marked contrast to the traditional layout of government accounts, which differs greatly in form from one country to another. The often obsolete and economically scarcely relevant concepts used are supported by tradition and have sprung in part from historical accident, in part from piecemeal reforms introduced in order to secure effective financial administration and parliamentary control.

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[31] Thus, for example, the Road Fund in the United Kingdom, which — after a series of " raids " on the fund to finance other activities — was later formally reabsorbed into the government budget.

[32] In France, for instance, the number of *comptes spéciaux* has been reduced from almost 450 to some 70 at present.

[33] For further details see José Luis Sureda, *Le Trésor et le financement de l'économie publique*; paper presented at the congress of the Institut international de Finances publiques, Barcelona, 1959.

There is no need in the present context to consider in detail peculiarities of the traditional budget as an instrument of administrative control rather than as a tool suited to the framing of policy. However, considerable importance still tends to be attached to the administrative budget, and conclusions are often drawn from it about the economic effects of government activity. Budget surpluses or deficits, in particular, are liable to be taken as *prima facie* indicators of the government's inflationary or deflationary activity. To the extent that this may hamper the pursuance of an active budgetary policy, as is without doubt the case in many countries, the layout of the administrative budget is therefore of interest.

The earliest and probably the most systematic effort to modify the formal presentation of the administrative budget was made in the Scandinavian countries. Capital items were already distinguished in a special budget separate from that covering current transactions in the twenties in Norway and Denmark, followed by Sweden in the mid-thirties. Since then, transactions have been further differentiated and improvements made in classification; but the basic layout adopted in the inter-war period has remained essentially unchanged. The advisability of retaining the divided budget in these countries has, however, been debated of late, since the financial implications of the system have been called in question. The upshot in Norway has been the elaboration of a new budget practice to take effect from 1961. It will allow the relations between total government expenditure, taxation, and borrowing to be determined in the light of general economic and monetary criteria instead of with reference to the budget balance.

Apart from Spain, where a financial reform of 1958 introduced the principle of a capital budget, only the four Scandinavian countries and the Netherlands in western Europe distinguish a proper capital account, strictly defined, in the budget. Elsewhere the breakdown of the budget is almost always based on a separation of ordinary (or general) from extraordinary (or special) expenditure; or of a revenue account from a loan account. Usually the criteria determining the line of demarcation between the two types of transaction are not laid down precisely, and this leaves considerable scope for arbitrary classification. In some countries the traditional systems of classification, whose origin can be traced back to the last century or beyond, have been gradually modified in recent years to approach the layout used in the Scandinavian countries. This is particularly true of France, where the presentation of the administrative budget has undergone a series of reforms in post-war years. With the most recent changes, introduced in 1958 and 1959, the bulk of government expenditure on investment (including investment subsidies and loans) is assembled in a capital account. But the existence of a third account in France — a Treasury account, quite distinct from the budget proper — has proved in practice a source of confusion about the meaning of the budgetary concept of deficit or surplus; for the Treasury account encompasses loans granted for housing construction, to nationalized industries and to selected private projects[34] — transactions barely, if at all, differing from some included in the government capital budget. Hence the possibility of transferring transactions from the main budget to the Treasury account and vice versa has rendered the concept of deficit or surplus in the total government budget quite flexible. Yet the practice of keeping important types of government lending outside the main budget is not peculiar to France: it occurs, to a greater or lesser degree of importance, in a number of other western European countries.[35]

Similarly, the division of the budget in the United Kingdom into two sections — " above the line " and " below the line " — has gradually come near to one between current and capital accounts. The government may, but need not, put " below the line " those items of expenditure which it has the power to finance by borrowing. In effect, it traditionally charges " capital " items (e.g., trunk roads, hospitals) against current revenue by putting them " above the line ". On the other hand, such current items as the accumulated operating deficits of British Railways are placed " below the line ". An " alternative classification " distinguishing current and capital transactions was introduced by the Chancellor of the Exchequer in 1948, and was set out in the budget alongside the traditional layout until 1955, when it was abandoned.

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[34] The Treasury has developed into a major investment bank in post-war years; its financial operations are almost as big as total expenditure under the government's civilian capital budget.

[35] In Norway, for instance, funds borrowed by the state in the open market for the financing of the state banks' operations, which concern largely housing, local authorities' investment and high priority private industrial projects, are not recorded in the budget. Some 600 million kroner a year — which is nearly as high as central-government net investment in general-government and state enterprises — have been kept outside the budget in this way in recent years. The reform introduced in 1959 will bring these transactions into the budget.

Elsewhere the distinction that is generally made between ordinary and extraordinary transactions is very vague. In western Germany, for example, extraordinary expenditure is officially limited to *werbende Zwecke* — corresponding very roughly to investment expenditure; but in practice investment financed from ordinary revenue (a considerable proportion of total central government investment in recent years) is entered in the ordinary budget. Even drawings on cash reserves have in certain years been included in the revenue side of the ordinary budget. Budgetary entries are indeed shifted back and forth as the situation demands so that the law requiring ordinary expenditure and receipts to balance is virtually a dead letter.[36] The inclusion of unspent appropriations in closed accounts expenditure further diminishes the relevance for practical purposes of the concept of budgetary surplus or deficit in western Germany;[37] a revision of the system is under discussion, but has as yet not resulted in any official proposals for reform.

The system employed in the Belgian budget also leaves scope for arbitrary classification. Changes have been introduced since the early inter-war years when cost-of-living allowances paid to civil servants were sometimes charged to the extraordinary budget, although as late as in the fifties some current items have occasionally been classified in the same manner.

In sharp contrast to the great diversity existing in conventional administrative budgets, the layout of the two classifications — economic and functional — developed to facilitate economic analysis of the nature and effects of government transactions have been standardized. Although a uniform degree of refinement in differentiating transactions has not been attained in all countries (details of classifications differ with the institutions and scope of government responsibility in individual countries), the economic and functional categories distinguished are broadly the same.[38] As a rule these classified accounts are submitted to the legislature simultaneously with and as a supplement to the administrative budget document. They have not the authoritative standing of the latter and the weight that they carry with the legislature in voting on budgetary proposals differs a great deal from one country to the next. In the United Kingdom, the Netherlands, and the Scandinavian countries the presentation of economically or functionally classified accounts is by now well-established (having been regularly laid before the legislature for fifteen years or more) and in these countries much of the debate on the budget is devoted to the examination of its implications for general economic policy. In France, Austria, and Belgium, on the other hand, where such accounts have been provided in only the last two or three years, these classifications are less important in the budget debate. A few countries, including western Germany, do not as yet utilize estimates based on economic criteria in the budget document.[39]

Most budget statements are accompanied by a report on the current economic situation and trends as they bear on the budgetary proposals. Sometimes, as for example in Switzerland, such reports are no more than a short introductory statement made by the Minister of Finance: but they can also, as in Norway, run to a hundred pages or so. In the latter country the report is in the form of a " national budget ", which appraises the course of the economy and outlines against this background the economic policy which the government intends to follow in the coming year. A comprehensive and detailed government economic programme is also ordinarily submitted with the French budget proposals — or sometimes during the budgetary term; but it does not attempt any precise forecast of the development of the economy as is done in the Norwegian national budget. Yet it is of interest to note that the decree of 1956 providing for the French report calls for an analysis of economic trends not only at home but also in countries of particular interest to the French economy.

Not all countries have gone so far in trying precisely to evaluate the economic consequence of the budget as the Netherlands, where a high degree of precision in indicating and even quantifying the economic impact of budgetary measures is sought;[40] for example in western Germany little attempt is made to relate a detailed quantitative analysis of the budget to economic trends and requirements.

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[36] In Portugal and Finland the budget balance is subject to similar legal stipulations set forth in the Constitution, although it is not explicitly stated that ordinary receipts and expenditure must balance. But in Portugal such a requirement is clearly implied, since the Constitution limits all borrowing to purposes included in the extraordinary budget. In Finland, the stipulation that budgetary appropriations have to be allocated for covering budget expenditure is in practice interpreted as meaning that a current deficit is inadmissible. Until 1959 written rules existed in Norway which stipulated that the budget should be drawn up so that the surplus on current accounts be at least large enough to cover contractual debt repayments.

[37] From 1952 to 1956, when accumulated cash surpluses came to a total of some DM 8 billion, the Government of the Federal German Republic showed only minor budget surpluses, as large unspent appropriations for mainly military purposes were included under the heading of expenditure.

[38] For expenditure the two classifications may distinguish, for instance, the following categories based on:

A. *Economic criteria* — Current expenditure on goods and services (compensation of government employees and armed forces, rental of fixed assets, military construction and equipment); interest payments; subsidies; social security benefits, etc.

B. *Functional criteria* — General services (general administration, defence, justice and police); community services (roads, fire protection, etc.); social services (education, health, etc.); economic services (agriculture, fuel and power, etc.).

For further details, see *A Manual for Economic and Functional Classification of Government Transactions*, United Nations, New York, 1958.

[39] The distribution of transactions among broad functional categories has been given in western Germany since 1952.

[40] The techniques employed are described in Chapter VI.

The Central-government Budget as a Policy Instrument

How far the flows of government expenditure and receipts can be stemmed or enlarged in response to short-term requirements largely depends on the pattern of expenditure. Earlier in this chapter (section 2 above) it was shown that a substantial share of central-government outlays consists of expenditure that can be substantially varied in the short run only with difficulty.[62]

For purposes of stabilization policy, however, some consideration of the scope for making moderate rather than major adjustments may be sufficient. The most important single factor determining this scope is the prevailing political attitude towards an active budgetary policy. This does not mean simply the belief or disbelief in such policy, but the political acceptability in general of tax increases and expenditure cuts. Where this acceptability is limited, a government cannot easily deal with, say, excess demand by means of budgetary policy. Deficient demand, in contrast, presents no such problem. Tax cuts and larger outlays are seldom unacceptable, which partly explains why, as is illustrated in Chapter VI, governments tend to rely on budget policy less for tackling excess than for tackling deficient demand.

Five stages — each introducing an inescapable time-lag — can be distinguished in the interval between the occurrence of the need for policy action and the moment when such action takes effect: the recognition of the disturbance and its diagnosis; the formulation of concrete policy proposals; their acceptance; the implementation of this policy; its results. The length of the first stage is governed by the quality of economic statistics and forecasts. The position in this respect undoubtedly varies a great deal from one country to another; but in almost all great progress has been and is being made in providing up-to-date data, economic reporting and interpretation. The availability of statistics and the competence of the responsible authorities may be a less important factor in the time-lag occurring between the recognition of need for policy adjustments and the crystallization of a concrete policy proposal. Nevertheless the process will normally take time, for different diagnoses may be reached, and medicines prescribed, by professional advisers; the fiscal and monetary authorities may be at variance; and due account must as a rule be taken of the attitude of powerful private bodies such as the trade unions, industrial associations and farmers' organizations. The length of the final stage — the effects of the measures once taken — is closely bound up with the nature of the measures involved and the manner in which the economy works. This is considered in Chapter VI. The intermediate stage — the acceptance of a policy proposal — is of particular interest in the present context, since it is here that institutional arrangements and procedures are of salient importance.

Government discretionary powers. It is a fundamental principle of parliamentary democracy that changes in government income and outlay require prior approval by the legislative body. Departure from this principle is made to a varying extent in all western European countries; but, apart from French practice, the discretionary powers delegated to the executive are not important enough greatly to speed up policy action.

The requirement of prior parliamentary consent is particularly rigorously applied in respect of taxation. With the exception of taxes and duties in the nature of payments for specific services rendered (such as the prices charged for public utilities and services) the delegation to the executive of fairly wide powers to make changes in taxation is rare. Authority to act without prior parliamentary consent is as a rule granted in respect of only a few specified indirect taxes and dues which hold little attraction for policy purposes.[63] To this the United Kingdom may constitute an exception: no taxes can be altered without Parliamentary approval; but the Government has a certain measure of *de facto* freedom in respect of the general purchase tax, since it can move goods from one tax category to another simply by administrative orders of the Treasury.

Wide powers in taxation matters are delegated to the executive only in situations of great emergency, such as war. But in France the delegation of such powers has been a recurrent peace-time feature of the inter-war and post-war years. The discretionary powers vest in the government authority to issue decrees concerning specified fields of taxation and expenditure which have the force of law in that they modify existing law.[64]

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[62] A detailed discussion of the variation of governmental expenditure and receipts is given in Chapter VI.

[63] In Sweden such taxes include certain types of licence duties applied in foreign trade, the import duty on grains, and duties relating to the registration of motor vehicles, the control of sales of tax-free liquor, the production of military equipment, etc. When Parliament is not in session the Crown is free to alter a number of customs duties without prior Parliamentary consent. These powers were introduced during the last world war and have since been renewed annually.

[64] As a rule the decrees are subject to ratification by Parliament after a specified period of time and under simplified procedures of voting. The Government's proposal (which may — as has become customary nowadays — or may not go into detail) must be expressly rejected by the Assembly within a given time-limit, otherwise it automatically takes effect whether the Assembly has given its consent or not. Such discretionary powers are always granted for a specified period of time. Sometimes (e.g. during the premierships of MM. Laniel and Mendès-France) a time-period was specified but the authority was restricted to the government in office, to be withdrawn with the fall of the government even if that occurred before the period had elapsed.

The freedom of action accorded in this way to French governments has greatly facilitated both the frequent adjustment of taxation in post-war years and a number of the other policy adjustments discussed in Chapter VI. The Constitution of 1958 substantially extended the facilities provided under this system.[45]

Government freedom to vary expenditure without prior parliamentary consent is generally rather greater than in respect of taxation; and in principle this freedom of manœuvre is greater for downward than for upward adjustments in expenditure. Parliamentary appropriations tend to constitute an upper rather than a lower limit and unless they are tied to specific legal arrangements (e.g. the introduction or raising of pension payments or family allowances) the executive is under no strict obligation to exhaust voted appropriations. In practice, however, the executive can only with difficulty avoid doing so; for the bulk of appropriations is made on the understanding, implicit or explicit, that specific services will be provided.

For upward adjustments of expenditure a number of arrangements exist which grant the executive some measure of flexibility in implementing the budget. Lump sums are frequently appropriated — particularly for expenditure items which are difficult to assess accurately at the time of budget voting, and voting procedures have been worked out in a number of countries so as to leave considerable discretionary powers to the government in the disbursement of public funds.[46] Yet the flexibility provided by a system of lump-sum appropriations is of limited importance for policy purposes: since global amounts must not be surpassed, the scope for manœuvre is restricted to shifting expenditure between categories, which may differ somewhat in their effects on disposable incomes and activity in the economy. Besides, lump-sum payments seldom cover expenditure relevant for selective policy measures; and the narrow limits set to the scope for adjustments by the understanding that specific services must be provided further diminish their serviceability for policy purposes.

Global appropriations can only rarely be exceeded without prior leave of parliament, although in some countries this restriction is relaxed when government revenue turns out to be higher than budgeted. Thus the Minister of Finance in western Germany and Austria, for example, is free in such circumstances to allocate unbudgeted receipts among spending departments as he thinks fit. The considerable possibilities offered for discretionary government action of this type have frequently led to the persistent and deliberate under-estimation in the voted budget of anticipated tax receipts. This is true of Austria, for instance, where total closed-accounts receipts have exceeded the budget estimates by 10 to 20 per cent or more during the fifties.[47] To hold in check the discretionary powers left to the executive under these circumstances, a contingent budget (*Eventualbudget*) was used in two years — 1957 and 1958. By this device Parliament granted prior authorization for specified expenditure rendered possible by unforeseen increases in receipts. In Belgium, the problem of " excessive " government spending powers has been tackled in a different way: a law passed in June 1959 compels the government to deposit in a budget equalization fund all tax receipts in excess of 105 per cent of the previous year's.

Emergency or contingency funds, established for the financing of unforeseen government expenditure, is a third technique frequently employed to provide flexibility in budget execution. These can be drawn on only under very special circumstances — sometimes so defined as to include a serious deterioration in the economic situation. Finally, in a number of countries special programmes or projects exist which can be put into operation, accelerated or slowed down without the prior consent of Parliament. These may take the form of long-term or multi-annual investment programmes, as — for example — in France and Austria.[48]

The Role of Parliament

Briefly put, the preceding discussion suggests that, since in western European countries other than France the discretionary powers delegated to the executive are limited, the role of the legislature is of central importance in determining the scope for prompt policy adjustments. Parliamentary practices in the handling of budgetary matters in some countries interpose considerable time-lags between the presentation of budgetary proposals and the start of the budgetary year. In western Germany, Sweden and Norway, for example, some five to six months normally elapse between the presentation of the annual fiscal budget and the final parliamentary vote on it; whereas in the United Kingdom much less time is normally required. Parliamentary action on the budget may be delayed by both the legislature's preoccupation with other business during the budgetary period and time-consuming voting procedures. The present tendency is to reform practices on both these points so as to secure more prompt action.[49]

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[45] The Constitution lists matters subject to formal law, i.e. requiring action by Parliament. All matters not specified in this way can be settled by government decrees without the need for prior legislative authority for the issue of such decrees. The change brought by the 1958 Constitution will affect in particular the scope for government action of expenditure. " L'assiette, le taux et les modalités de recouvrement des impositions de toutes natures " are listed as matters subject to law, thereby excluding any independent government action in matters of taxation. For further details see Georges Burdeau, *Droit constitutionnel et institutions politiques*, 8^{me} édition, Librairie générale de droit et de jurisprudence, Paris, 1959.

[46] Thus, for instance, the introduction in France in 1956 and in Belgium in 1958 of voting by *titre* (type of expenditure) instead of by *chapitre* (spending unit), motivated in the first place by the desire to do away with cumbersome and time-consuming budgetary procedures, has helped to reduce inflexibility in the execution of the budget. The French reform brought the number of votes involved in the budget procedure down to 150. For comparison it may be mentioned that more than 2,000 votes were required in the budgetary proceedings of 1952.

[47] Substantially more realistic forecasts of tax receipts were made in western Germany where closed accounts and budget estimates did not differ by more than 2 per cent during the fifties except in 1955 when the discrepancy amounted to 5.5 per cent.

[48] Under the Austrian programme (covering the period 1954-1963) 10 billion Schillings are appropriated for railway electrification, road-building and the modernization of postal services. It was designed to serve as a tool in counter-cyclical policy and leaves annual variations in expenditure to the discretion of the government.

Parliamentary action on supplementary budgets in which expenditure is proposed in excess of appropriations originally voted tends to be fairly rapid when government revenue turns out higher than budgeted. In general there appears to be less concern about keeping expenditure within the original appropriations than with securing a deficit or surplus of approximately the magnitude initially foreseen, and parliamentary consent is as a rule obtained far more readily when the government can prove that funds are available for additional or supplementary appropriations. When the economic situation has called for adjustments of budgetary policy, the legislatures of the United Kingdom, the Netherlands, and the Scandinavian countries, amongst others, have generally taken prompt decisions on expenditure irrespective of the development of revenue.

On matters of taxation it usually takes longer to secure parliamentary approval for changes in income taxes than in indirect taxes. Authority to reduce or abandon specific indirect taxes may be promptly accorded when such measures do not entail cuts in the expenditure originally budgeted. The arrangements for changing taxation on incomes vary considerably from one country to the next. In the United Kingdom, for instance, the legislation for income taxation is re-enacted annually and there is power to ensure that changes in taxation take effect promptly. In western Germany, on the other hand, such changes must be introduced as major reforms and a delay of several months elapses between the presentation of the governmental proposal and final parliamentary action.[50]

Another question of interest here is whether and to what extent governmental budgetary policy can be hampered by parliamentary intervention. The parliamentary initiation of expenditure is strictly limited in some countries: in western Germany proposals originating in the *Bundestag* for an increase in existing expenditure or for new expenditure can only be submitted if accompanied by proposals for revenue sufficient to cover the sums involved; and such proposals are subject to governmental approval.[51] Similar restrictions on parliamentary spending initiatives exist in the United Kingdom, where they date back to a Standing Order of 1706 stating that spending bills can only be introduced by the Government and never by private members, in order to check "the easy extravagance of large assembly". Nor can existing expenditure be raised without governmental consent. Formal restrictions on parliamentary spending initiatives in Belgium are confined to proposals made during the course of the budgetary term which must be accompanied by proposals for commensurate increases in revenue; but in practice little importance is attached to this stipulation.[52]

In the Netherlands, Switzerland and the Scandinavian countries, the spending initiative of the legislature is apparently not subject to any such formal restriction. Members of Parliament are entirely free to propose expenditure, though they may not always have the means of ensuring that money appropriated in this way is also spent. In the Netherlands, for instance, enforcement of expenditure can be assured only through separate bills, passed for example in connexion with the introduction or raising of pensions; but even in such a case the government can pronounce the bill unacceptable. In effect no expenditure can be approved without the co-operation of cabinet members.

In most countries parliament has the right to initiate expenditure cuts, although this power may be seldom used in practice; and governmental freedom from parliamentary intervention in government economic policy may be somewhat greater when it seeks to correct a situation of excess demand through keeping government expenditure low than when the situation calls for a high level of government expenditure. In respect of taxation, too, there is in principle greater freedom from parliamentary intervention in the former than in the latter situation in some countries. The legislature in France can only propose cuts in taxation if it at the same time puts forward proposals for reductions in expenditure. This type of proposal can be made only during the budgetary term and not at the time of voting on the annual and supplementary budgets, when the Constitution completely prohibits any Parliament initiative involving a reduction in receipts. And in Sweden, where there are no formal restrictions on parliamentary initiative of expenditure, written rules (which have not been rigorously observed in practice) [53] stipulate that the power of initiative in matters of taxation resides in the Crown.

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[49] In Norway, for instance, new arrangements were approved in 1959 which will leave Parliament free to concentrate on budget matters during a relatively short autumn session and action on other questions will be held over for the spring session. The fiscal year, which at present runs from July to June, is changed to coincide with the calendar year.

In France and Belgium, the recent introduction of voting by *titre* instead of by *chapitre* (already referred to above) has contributed to speeding up budgetary procedures. An important step forward in this direction was also made by the French Constitution of 1958 which set a time-limit to Parliament's deliberations on the annual and supplementary budgets. For further details see " La loi organique relative aux lois de finances " (Ordonnance du 2 janvier 1959), Secrétariat général du Gouvernement: *Notes et études documentaires*, No. 2537, 2 mai 1959.

[50] The process takes time since these reforms have to be sanctioned by the *Bundestag* and the *Bundesrat*. As often happens, the two Chambers are in disagreement and a compromise proposal must be drawn up by representatives of both. This proposal then needs to be returned to and formally accepted by the *Bundestag* and the *Bundesrat*.

[51] The French Constitution of 1946 provided for a broadly similar system, which has, however, been altered by the Constitution of 1958. The latter completely prohibits any initiative by the legislature involving an increase in expenditure, whether or not such a proposal is accompanied by proposed compensatory adjustments in receipts. This applies to the voting of the annual and supplementary budgets. For proposals made during the budget term, the arrangements of the 1946 Constitution have been essentially retained — but with the important condition that such proposals can only be definitely voted after authorization of the expenditure by a *loi de finances*.

[52] The stipulation is incorporated in a law of 1846. For further details, see Fernand Baudhuin, *Précis de Finances Publiques*, Première partie, pp. 59-60, Bruxelles, 1958.

Less directly relevant, perhaps, to the question of stabilization policy in particular, but certainly of considerable importance for budgetary policy in general, is how far parliamentary practices permit well-considered policy decisions. The present legal machinery and procedural arrangements governing the framing [54] and adoption of budgets in some western European countries make it difficult to ensure that expenditure is considered in relation to revenue and that decisions on these transactions are co-ordinated. Under the British system, for instance, Parliament makes temporary grants — " supply on votes of account ", which later become virtually frozen long before the Government's revenue proposals are disclosed in the budget. In Belgium, on the other hand, ways-and-means estimates for the fiscal year starting in January are normally put to the vote by the end of December, whereas expenditure is not finally approved till well into the new year.

In addition to the divorce of expenditure from revenue decisions in some countries, the clarity of budgetary policy is impaired by the pressure to continue expenditure once started, thus preventing an objective balancing of new and old. The great bulk of existing expenditure is, as a rule, taken for granted and attention focused on the increases or reductions proposed in the budget.[55] A recent Swedish Parliamentary Report,[56] which proposes means of effecting economies in public activity, strongly emphasizes the constantly changing nature of government tasks and the need for periodic investigations into " normal " or traditional types of expenditure.

The Relationship of Central Government with Local Authorities

The position of central authorities in relation to local-government activity is, in western European countries, far from uniform ; for it reflects differences in administrative traditions, legal or constitutional arrangements, and the political climate in individual countries. Among the countries examined here there are no cases of central control so complete that local authorities are no more than agents of the central government, enjoying only such discretionary powers as are delegated to them by the latter. Nor are there examples of the other extreme — local authorities functioning as fully independent bodies with inalienable rights and responsible only to their own electorates. The degree of local autonomy is decidedly greater in federations such as Switzerland and the Federal Republic of Germany than in countries with a unitary and highly-centralized government structure like France and Spain; but even in Switzerland there is a certain degree of federal influence and guidance over cantonal and communal affairs. The tendency has generally been towards a reduction of local-government autonomy — even in countries where local freedom from central control is a deeply-entrenched principle of social philosophy. The power to act in accordance with local interests has gradually been subordinated to the duty to act in accordance with national interests.

The size and structure of the local-government sector has been indicated in the data given in section 2 above. It may be recalled here that local government is distinctly more important in northern European countries than in other countries with a unitary constitutional system, and that in federations (e.g. Switzerland and western Germany) local government predominates in public-sector operations.

There is also considerable variation in the structure of local government in terms of both the type of tasks within its sphere of competence and the various ways in which local authorities obtain the finance necessary for their activities. The expenditure side of local finances tends ultimately to determine the extent of adjustments that can be made in local-government activity to bring it into line with national policy needs. In countries such as the United Kingdom, where local expenditure is heavily concentrated on the provision of education and other current needs, and only some

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[53] See *Bestämmelser och praxis rörande statens budget*, Statens Offentliga Utredningar 1952: 45, Stockholm 1952, pp. 25 and 46.

[54] In many countries considerable progress has and is being made at the stage of budget preparation in devising techniques that facilitate the co-ordination of spending and financing estimates. The introduction of systems of classification based on functional criteria, discussed above, has made an important contribution in this respect. Sometimes considerable differentiation of expenditure is undertaken in the accounts of individual spending departments and agencies in order to introduce the notion of cost or profitability of operations on the lower levels of management.

[55] Practices may vary somewhat in this respect between countries. In the British Parliamentary Select Committee on Estimates, for example, routine outlays tend to be in more risk in the examination than new outlays. The latter are as a rule well defended by the civil servants proposing them and Members of Parliament look at the undefended estimates.

[56] *Besparingar inom Statsverksamheten*, Statens Offentliga Utredningar, 1959: 28, Stockholm, 1959.

15 per cent of total expenditure is investment, the scope for variations is more limited than in Greece and Luxembourg, for example, where one-half of disposable local resources is devoted to capital formation. In most other western European countries local authorities devote from one-fifth to one-third of their resources to investment.

Central control over local authorities may be exercised either by direct regulation of local expenditure or by restricting the availability of local funds from taxation, central grants and transfers, and local borrowing. It generally consists of a combination of devices directed towards several or all of these operations, but in all the countries examined here central influence depends more on controls over local revenue and borrowing than on direct regulation of local current and investment expenditure.

Control of Local-government Expenditure. Apart from general controls over labour supplies, building licensing, etc. (which are disregarded here, since they are not specifically related to central-local relations), local expenditure is not as a rule extensively controlled or supervised by central government. But it should be borne in mind that such general regulations have enabled central government to keep quite a firm grip on local investment expenditure in many countries in the post-war years so that other devices of control have been largely superfluous. With the gradual dismantling of these restrictions in most countries (in Norway and the Netherlands they are still in part retained) local authorities have been much more free to decide how to spend the money at their disposal, apart from grants made dependent on the fulfilment of certain conditions, for example, the provision of specified services or investment projects. The dismantling of direct controls has also been accompanied by a tendency, in legislation governing central-local relations, to make the provision of some local services mandatory rather than optional. And in some countries (e.g. Sweden) the extension of public activity in spheres such as social welfare and health has added important new types of statutory functions which have greatly increased that part of local-government activity devoted to the fulfilment of centrally prescribed tasks.

In a number of countries local authorities are obliged to submit to central departments detailed budgetary accounts which are sometimes scrutinized by centrally appointed auditors. The main object of this requirement is, however, to inform central departments; and in so far as departments act on this information, they do so largely in an advisory capacity, and on questions of accounting principles and methods. In any event, these budgets and reports cannot be compared to the budget estimates and accounts of central departments subject to revision by the ministry charged with the preparation of the budget and by parliament. France seems to be the only important exception in this respect. Depending on their population and on the level of their taxation and interest charges, the *communes* must obtain the approval of the *départements* for their budgets which are also subject to the rule that current receipts and expenditure must balance.[57] A similar system in western Germany governs the relations between the *communes* and the *Länder* — but the latter enjoy far greater autonomy than the French *départements*.

A good deal of central supervision of local-government activity relating to health, education and other services forming part of national programmes exists in most countries. The local authority may be required by statute to provide certain funds in its budget for this type of expenditure as well as for other essential local services, such as fire protection, the upkeep of local roads, etc.[58] And it may also be required to prepare comprehensive programmes and schemes for the development of specific services — such plans being subject to emendation by central departments.[59]

Local Government Taxation. As a rule local-government tax revenue finances an important share of total local expenditure — ranging, in terms of current expenditure, from two-fifths in the United Kingdom to between two-thirds and three-fourths in western Germany and Norway. The position in selected countries in 1957 can be seen from the data below, which are based on national statistics and are therefore not fully comparable.

Sources of local-government current revenue in 1957

Percentage distribution

	Taxes	*Property and trading income*	*Transfers from central government*	*Other current revenue*
Belgium	56	11	31	2
Western Germany [a]	68	11	9	19
Italy	57	5 [b]	29	9 [c]
Netherlands	49	12	36	3
Norway [d]	74	3	22	1
Sweden [e]	62	—	19	19 [f]
United Kingdom	40	22	38	—

Source: National statistics.

[a] Including *Länder*.

[b] Rent and interest receipts only.

[c] Including trading income.

[d] 1956/57.

[e] 1956.

[f] Including property and trading income.

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[57] In some other countries, too (e.g. the Netherlands and Sweden), local authorities are legally bound to hold current expenditure at a level that can be covered from current receipts.

[58] In France, the obligatory expenditures of local authorities, which are listed in a law of 1936, also include the servicing of local debts.

[59] For instance, the Education Act of 1944 in the United Kingdom required each local authority to prepare and submit to the Minister of Education a development plan based on the immediate and long-term educational needs of its area. After alterations by the Minister of Education, the plan was given statutory force by the issuance of local education instructions.

Another important source of local finance is transfers from central government. These cover one-fifth or sometimes considerably more of current local expenditure—except in western Germany, where receipts from miscellaneous fees, fines and compensations are the main source of income supplementing tax revenue.[60] Income from property and trading activity is of some importance in local finances in the United Kingdom,[61] Belgium, the Netherlands and western Germany; but is negligible in Norway and Sweden.

Income from local-government taxation roughly equals that from central-government taxation only in the two federal states, Switzerland and western Germany. In Austria, Norway and Sweden, local tax revenue accounts for 25 to 30 per cent of the total, whereas it is relatively less important in the remaining countries. There are pronounced differences in the extent to which local tax revenue depends on income taxes rather than property and indirect taxes. In the United Kingdom, France and Belgium, local tax receipts are mostly derived from the latter types of tax; whereas in Switzerland and Norway income taxes provide the bulk of local tax revenue, and local authorities clearly outweigh central government in their collection in these countries and in western Germany.

The tax receipts of local authorities arise in two ways: either from a share in central-government tax receipts, or from locally levied taxes. For the former method, the local share is as a rule calculated as a percentage, which is fixed annually in the Netherlands and Belgium and for a period of years in western Germany and Austria. In the Scandinavian countries, the United Kingdom and France, local tax revenue is raised almost entirely from locally levied taxes.

There are wide divergences between countries in the types of taxes that are shared between central and local government. And there is also considerable variety in the types of taxes levied locally. Yet there are general features relevant to budgetary policy, and these are worth noting. Where local income taxation exists in the continental countries of western Europe, it is in the form of central-local sharing—except in Switzerland, where these taxes are entirely locally levied.[62] In western Germany, Austria and the Netherlands local receipts from income taxes are obtained as a share of central taxes.[63] In France, there is no local taxation of income, and in Belgium, only on a very limited scale. The *centimes additionnels* [64] added to central taxes in the latter country largely affect property and land taxes and are of limited importance as a source of local tax revenue.[65]

In the Scandinavian countries and the United Kingdom the central-local sharing of tax receipts is restricted to a few specified indirect taxes of limited importance; the major part of local tax receipts is yielded by locally levied taxes on income and property. In the United Kingdom, the property rates (i.e. taxes on property) supply all local-government tax revenue.

Central-government regulation of local taxation is in general limited, although by no means non-existent.[66] This is true of both principles, whether central-local sharing or locally levied taxes—with France perhaps the only important exception. The French central authorities lay down narrow limits within which local bodies are free to choose their *centimes additionnels*. Nor is there greater local freedom in the case of other local taxes; the type of taxes which local bodies are free to levy are specified, and taxes other than these can only be introduced with prior parliamentary sanction. Moreover, the rates applied in these specified taxes cannot be raised without the consent of the central government.

The extent of central-government influence in countries such as western Germany and Austria is more difficult to ascertain inasmuch as the bulk of local taxation, or the part subject to central-local sharing, is determined after consultations between central and local authorities. In reaching agreement on the percentages to be applied by individual local governments, account is taken of such factors as the relative importance of the tasks to be financed on the local level, the contribution made to tax revenue by residents of the area, and the extent to which it is backward or constitutes a " problem area " (e.g. the areas most affected by the inflow of migrants to western Germany). This system evidently leaves room for a certain measure of central influence; but it may be of limited importance for policy purposes, particularly where the percentage shares are legally set for a series of years, as in the two countries mentioned. In the Netherlands, where such shares are set annually, the scope for varying them from one year to the next, or in the course of the year, to meet policy requirements appears to be somewhat greater. A number of the locally levied Dutch taxes are also subject to central influence in that they consist of a principal amount and a surcharge, both of which are legally fixed.

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[60] Some of these types of receipts appear to be included under taxes in the other countries shown in the table.

[61] This income is given gross (i.e. before providing for depreciation and stock appreciation). If allowance could be made for these charges, the relative importance of income from property and trading in the United Kingdom would approach the magnitude of such receipts in western Germany, the Netherlands and Belgium.

[62] With the exception of the national defence tax which is a federal tax. In Italy some locally levied taxes of industry, trade, the arts and professions are in part income taxes. In addition to these the Italian provinces and communes levy a maze of direct and indirect taxes including land and property taxes, and taxes on sales of a variety of consumers' goods as well as construction materials.

[63] Dutch local authorities receive a share of total central-government tax receipts (excluding receipts from the motor-car tax). In Austria, too, the system of central-local sharing applies to a wide range of taxes including (in addition to income and property taxes) the general turnover taxes and a number of specific indirect taxes. In western Germany the system is largely restricted to taxes on income and corporations.

[64] *Centimes additionnels* are also applied in France, where they provide very nearly 40 per cent of local tax receipts (one-fourth in the *communes* and two-thirds in the *départements*). These taxes are, however, no longer calculated as shares of centrally levied property and land taxes. The latter have been dismantled but are still calculated in order to serve as a base for the local *centimes*. The system was reformed in 1959 and will be put into operation in two or three years. For further details see Ministère des Finances " Les récentes réformes administratives et les collectivités locales ", *Statistiques et Etudes Financières*, No. 126, juin 1959.

[65] Following a reform passed in Belgium in 1948 the *provinces* and *communes* abandoned most of their *centimes additionnels* and other shares in central taxes. Communal and provincial funds financed by the Treasury were established to compensate for local taxation dismantled by this reform and a few central taxes were transferred to local authorities. As the system now operates, one part of the Treasury contribution (recently about one-half) varies automatically from year to year with changes in the cost-of-living index and the remainder with changes in total central-government tax receipts. See " Les finances communales et provinciales ", *Bulletin d'information et de documentation*, Banque Nationale de Belgique, novembre 1959.

[66] Switzerland stands in marked contrast to other western European countries in this respect. The cantons and communes enjoy complete independence in taxation matters.

In Italy central influence is in practice limited. An upper limit is set by central government to the rates applied in local taxation of income; and indirect local taxation is also subject to centrally-determined limits. These have little practical importance, however, since provision is made for them to be surpassed if warranted by the financial situation of the local government. The tax reform passed in 1957 further curbs local powers of taxation.

The practices followed in the Scandinavian countries permit a great deal of local autonomy and this is particularly true of the Swedish system. Swedish local authorities choose the tax rate they wish to apply, but the deductions allowable in assessing taxable income for local taxation are set by the state. Since local authorities are free to fix their rates so as to offset any effect on their receipts of centrally-determined changes in deductible allowances, central-government influence is in practice negligible.[67] In Norway, the state fixes limits within which local authorities are free to choose both the tax rate to be applied and the deductions to be allowed in assessing taxable income. Although the margins are not wide, the control left with central authorities is clearly inadequate for the purposes of stabilization policy when adjustments needed in tax rates may be no greater than the scope for action left to local authorities by these limits. Finally, local authorities in the United Kingdom are fairly free to set the level of their property rates, but the base of taxation is in effect determined by the central government. An Act passed in 1948 declared that the valuation of property should no longer be a local-government responsibility but that of the central authority.

The extent to which the pursuance of stabilization policy is impeded by the limited influence generally exercised by central government over local taxation may conveniently be considered in two parts. There is, on the one hand, the question: is local taxation an impediment to policy aiming at influencing disposable incomes, consumption, and investment activity in the private sector of the economy; and on the other, does local taxation raise difficulties for a policy that requires adjustments in the consumption and investment expenditure of the local authorities themselves ?

In dealing with the first question it should be remembered that corporate taxes, taxes on investment, and similar highly strategic taxes are as a rule centrally determined. The same is true of most turnover and sales taxes. Income taxes constitute no problem in countries like the United Kingdom and France, where local taxation relies largely on property and land taxes, which are neither very important nor especially attractive for policy purposes. Nor need the large share of income taxation that is not exclusively centrally determined in countries like western Germany and Austria seriously impede budgetary policy. The percentage shares applied may be rigid, but the system of central-local sharing provides a fairly important measure of control inasmuch as the central government is in a position directly to influence the tax revenue accruing at the local level by its authority to determine both rates and deductible allowances in income taxation. Given the fact that central authorities are not free to shift taxes in or out of the common pool from one year to the next, their influence is reduced to ascertaining that local authorities fare no better or worse than does the central government in respect of receipts derived from common taxes.

It is only in countries like Sweden and Norway that the lack of central control may have really important consequences for budgetary policy — especially in the latter country, where, in lower income ranges, income taxes are levied exclusively on the local level. Local income taxation in these two countries has, however, this advantage over the system of local-central sharing: it contributes to the more stable development of local expenditure.[68] In both Sweden and Norway local income taxes are very largely proportionate, whereas in countries like western Germany, Austria and the Netherlands local authorities share fully in such fluctuations in national tax revenue as result from the application of progressive rates to a changing tax base. In Italy, too, local income taxation is less sensitive to changes in incomes and prices than are the corresponding central receipts, since it is subject to an upper limit of 12 per cent as against 50 per cent in the central income tax. Where property and land taxes weigh heavily in local tax revenue (as in the United Kingdom, France and Belgium) such revenue is particularly insensitive to fluctuations in the economy — the more so on account of the normally infrequent assessment of property and land values. Belgium seems to represent the extreme case, where the local property tax is levied on a valuation of income from land and property which is reviewed only once in every twenty years.[69]

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[67] A cut in local taxation by an increase in deductible allowances may be secured by compensating local authorities for the resulting reduction in receipts. This was done in 1957, when Parliament raised deductible allowances in local income taxation to the level of those applicable in central income taxation. Transfer payments were decided upon which fully offset the loss in local tax receipts during the years 1958-1960 and will be gradually reduced thereafter.

[68] The system of collecting local taxes in Sweden makes for movements in local expenditure which in periods of fluctuating economic conditions may be distinctly different from movements in central-government expenditure. Local income and property taxes are collected by the central government and receipts reach local government only after a delay of two years, i.e. tax paid on income earned in 1958, for instance, accrues to local bodies

Little can be said in general terms about the promptness with which changes in local taxation dictated by requirements of national policy can take effect. Such measures are not normally subject to parliamentary approval; but they as a rule involve negotiations between central and local authorities which may well take as much time as the process of seeing a proposal through parliament.

Transfers from Central Government. The large differences in the relative importance in local finance of central-government transfers (illustrated by the data on page 23) are not always very significant. At first sight the considerable disparity between, for example, western Germany and the United Kingdom in the shares of central transfers (9 and 38 per cent respectively) and tax receipts (68 and 40 per cent respectively) in current local revenue may seem to point in the other direction, but there is no essential difference between the allocation to local authorities of a centrally-determined proportion of central-government tax receipts, on the one hand, and the transfer of a certain share of such receipts (not specified as a percentage), on the other. Yet it should be borne in mind that under a system of percentage sharing, the receipts of local authorities rise and fall in proportion with any unbudgeted rise or fall in central tax revenue. Where the sharing is by means of transfers, in contrast, the central authorities are under no obligation to adjust these to unbudgeted developments in tax revenue.[70]

In so far as the distinction made is between independently determined local taxes and centrally determined transfers (including such grants as are tied to the provision of specific services) it is very relevant for policy purposes. A common feature of most western European countries is that the bulk of central-government current transfers to local authorities tend to be of the latter type.[71] In view of the fact that they are chiefly intended to finance local activity in fields such as education, health and social services, the scope for adjusting them to fit policy requirements is in practice very limited.

Central-government capital grants to local authorities may, in contrast, serve as a more suitable policy instrument. They tend to be much less important quantitatively than current transfers;[72] and the extent to which they contribute to the finance of local-government investment varies considerably — in the United Kingdom less than 5 per cent of local-government investment is financed by capital grants from the centre; whereas the corresponding share for Belgian local authorities is of the order of 50 per cent. In other countries for which information is available — e.g. Sweden, the Netherlands and western Germany — central capital grants are distinctly less important as a source of finance for local-government capital formation than in Belgium. A large part of central-government capital grants is tied to specific investment projects and depends on the ability of local authorities to meet a certain share of costs from their internal resources and borrowing. These grants benefit a variety of local-government projects — but in particular the construction of schools, hospitals and other social facilities, and the building and upkeep of local roads.

Local-government Borrowing. Apart from Switzerland and western Germany, local-government borrowing is everywhere subject to fairly extensive control from the centre. This control is exercised by the Ministry of Finance, or other competent central departments, by state-controlled banks, or by the central bank. In the United Kingdom the Minister of Housing and

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in the course of 1960. The bulk of corresponding central-government taxes will be at the disposal of the central government in 1958. This system is subject to considerable general criticism in Sweden on the grounds that it encourages frequent increases in local tax rates and makes downward adjustments of rates in years of stable or declining incomes and prices difficult. But its implications for local-government expenditure may not necessarily be a bad thing — on the contrary: the lagged accrual of local government tax receipts would, to the extent that such receipts determine the volume of local expenditure, make local government activity a stabilizing element in the economy in periods when business conditions fluctuate with two-year intervals.

[69] A law passed in 1956 lays down a new principle for local property taxation, but this law has as yet not been put into operation.

[70] This is less true under the system of central-government transfers to the communes as it exists in Belgium. See footnote 65.

[71] More than four-fifths of current central government grants to British local authorities, for instance, have in recent years been earmarked for specific purposes and made dependent on the fulfilment of conditions by local authorities.

[72] Their share in total central transfers to local authorities amounts to 4 per cent in the United Kingdom; 10 per cent in the Netherlands; and from 15 to 20 per cent in Belgium and Sweden.

Local Government is entrusted with the power to sanction most loans raised by local authorities. The maximum duration of the loan is fixed by the central-government department, while the other terms are left to the discretion of the local authority. In the post-war years prior to 1952, the control of local-government borrowing took the form of a general prohibition [73] on borrowing other than from the Public Works Loan Board, a Treasury agency, which lent at gilt-edged rates. Borrowing in the open market was permitted in circumstances approved by the Treasury and took place in limited quantities [74] at slightly higher rates. Such borrowing was also controlled by the Bank of England's regulation of the so-called queue, i.e. the right and timing of entry by public bodies and overseas borrowers to the London capital market.

In the Netherlands, too, close control of the borrowing of the *communes* is an important, if not the most important, instrument in central-government control of local investment activity. A ceiling is set for local-government floating debt — which may not exceed 25 per cent of the current-account budget; [75] and loans issued by the *communes* must conform to an interest gamut — a scheme of interest rates. The system, which was restricted in 1956 to long-term loans, means that under present conditions local bodies may not issue long-term loans at a rate exceeding 4.5 per cent. The supply of capital to local authorities is centralized in the Communal Bank of the Netherlands (N.V. Bank voor Nederlandsche Gemeenten), which may issue loans at rates exceeding the interest gamut. Central-government control over local borrowing depends in Belgium also to an important extent on a local-government credit institution, the *Crédit communal*. This institution meets the total borrowing needs of local authorities — except those of the four large urban *communes*, which chiefly rely on the open market.

The influence exercised over local authority borrowing in other western European countries is somewhat different both in nature and degree from the cases described above. In particular, control appears to be less concentrated on a specialized credit institution (though a state bank, financed by state borrowing in the open market, exists in Norway for making loans to local government, and plays an important, but less prominent, role in local finances than do the communal banks in the Netherlands and Belgium).[76] The control of local-government borrowing is usually vested in the ministry of finance as, for example, in Austria or in a department for local affairs, as in Norway. In western Germany the *communes* can only undertake long-term borrowing by leave of the Ministry of the Interior of their *Länder* — which, it should be recalled, are not closely controlled by the Federal Government. No similar arrangements govern their position vis-à-vis the central authorities.

The criteria employed by central departments in acting on local-government applications for loans are chiefly based on, first, the soundness of the financial position of the local government and, second, how much priority is attached to alternative local-government projects in relation to the proposed scheme. In some cases central bank control over local borrowing is a more important tool for policy purposes; and both in Sweden [77] and Norway the central bank exercises such control. In the latter country the prohibition of loan-issues without prior central bank approval applies to local and private borrowers alike. There are also general restrictions of this type in France, affecting all bond (and share) issues exceeding a given limit, at present set at 10 million new francs; and in addition there are strict legal limitations on local borrowing.[78] Finally, whatever limited influence the Federal authorities in Switzerland may be in a position to exercise over the borrowing activity of the *cantons* and the *communes* goes via the central bank and the commercial banks. The *cantons* and *communes* are in principle entirely free from any direct

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[73] This restriction was relaxed from 1953 until 1955, leaving borrowing from the Public Works Loan Board optional and local authorities free to have direct recourse to the market for any loans that had been sanctioned.

[74] In the years 1948-1952, 3 per cent of local authorities' net borrowing was obtained from sources other than the central government. The corresponding share for the period 1956-1958 exceeded 80 per cent.

[75] The local authorities exceeded the 25 per cent ceiling in 1956, in consequence of the rise in interest rates. At a later stage, the issue of short-term loans was forbidden and the supply of capital to local authorities was centralized in the Communal Bank of the Netherlands. This bank received considerable loans from the central government in order to prevent a liquidity crisis in local governments and too large reduction in dwelling construction undertaken by them. At present the short-term indebtedness of local authorities still substantially exceeds the 25 per cent ceiling, and the Ministers of Finance and Internal Affairs have stated that it is necessary to maintain the centralization of the capital supply of local authorities at the Communal Bank.

[76] About one-half of local government net borrowing was provided by this bank during the fifties.

[77] Local-government borrowing in Sweden is also subject to specific regulations, stipulating that total loans must not exceed 5 per cent (7 per cent for a county borough) of local taxable income and must not run for more than five years. Loans not meeting these conditions require the prior approval of the central authorities — who may, depending on the character of the investment involved, permit an amortization period of up to 30 years.

[78] Borrowing by the *départements* and the *communes* without prior central authorization is in practice precluded by the law restricting such borrowing to loans which can be reimbursed from current local budget receipts within a specified period — set for the *communes* at 30 years. Moreover, communal loans — the servicing of which exceeds current receipts by 15 per cent — must be approved by ministerial decree, and the same applies to all loans made by *communes* with a population of over 80,000 and which have run a budget deficit for a period of three years or more. Finally, all local loans running for 30 years or more require approval by the *Conseil d'Etat*.

Federal intervention whether in their borrowing or other financial activity.

The possibilities for influencing local-government investment to fit policy requirements by control of local borrowing and capital grants ultimately depend on the weight in local capital formation of projects such as road building, dwelling construction, and similar undertakings which can be interrupted or speeded up without unduly great economic and social costs. Dwelling construction is an important local-government investment activity in the United Kingdom, Sweden and, to a lesser extent, the Netherlands; but is practically non-existent at the local level in France and Belgium. In the latter countries, however, a large part of local investment expenditure is for the building and maintenance of roads, which is an important local-government investment activity in most other countries as well. To the extent that this activity is financed by central grants, the possibility for influencing it in the short run may be limited, as such grants are normally made annually and cannot easily be altered in the course of the year. Control over local borrowing normally allows greater flexibility. Both methods have this in common: they will be more effective as checks than as stimuli.

The Relationship between the Central Bank and the Government

Western European central banks are, with few exceptions, completely or predominantly state owned. In most instances they were nationalized in the recent past — in fact, state ownership of the central bank is of long standing only in Sweden, where it was introduced as early as the seventeenth century. Elsewhere in western Europe the state acquired ownership of the central bank only in the immediate post-war period, and not until 1955 in Austria. The nationalization measures involved the transfer of the total share capital of the bank to the state, with Austria and Belgium apparently the only exceptions.[79]

In marked contrast to the position of other central banks in western Europe stands the Swiss National Bank, in which there is no federal ownership. Very nearly 60 per cent of its capital is held by the *cantons* and cantonal banks, and the remainder by large numbers of private owners. Nor is there any direct state ownership in the Bank of Italy; but a large share of its capital is held by banks which are either quasi-public institutions or are themselves owned by state-controlled bodies. In many cases the relationship between the government and the central bank may not have been greatly altered by nationalization, although the formal arrangements governing their mutual day-to-day relations were as a rule modified by the changed status of the bank.

As a general rule the governor of the central bank, the director, president or manager — in short its senior officials — are appointed by the government, the head of state, or by parliament. Even where state ownership of the central bank is only partial, as in Austria, Belgium and Portugal, or where there is no direct state holding in the capital stock, as in Switzerland and Italy, public authorities have an important say in appointments to the central bank.[80] The manner in which the power of appointment is divided between the government, the head of the state, and the legislature differs from one country to the next. In Sweden and Finland, where the central bank is formally responsible to parliament to a greater degree than is general in western Europe, relatively extensive powers of appointment are vested in the legislature.

In addition to these appointive powers, governments benefit from a number of other legal arrangements and statutory provisions which, in most countries, enable them to exercise a certain measure of control over central bank operations. The main exceptions are Sweden and Finland. The operation of the Bank of Sweden is governed by legislation expressly prohibiting directors of the bank from accepting instructions from any source other than parliament and its banking committee. In the United Kingdom, on the other hand, the Treasury has statutory authority to issue to the bank, after consultation with the governor, such directions as it thinks necessary in the public interest. The Belgian Minister of Finance has the right to control all the operations of the bank; he can oppose the implementation of any measure which would be contrary to law, to the statutes of the bank, or to the interest of the state.[81]

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[79] In Austria, one-half of the share capital was left in the possession of public institutions and other government approved holders. The Belgian nationalization measure did not necessitate the transfer of private holdings, but state ownership to the extent of one-half of the share capital was assured by reserving for state subscription the doubling of the total share capital.

[80] In many countries the scope for government control over central bank affairs by virtue of the former's powers of appointment is restricted, particularly in situations of changing political conditions, by the fact that such appointments tend to provide a long tenure of office. The governor and vice-governor of the Bank of France, who are appointed by government decree, have indefinite tenure. The practice followed elsewhere is usually one of fixed term appointment for senior officials as well as for members of controlling and supervising bodies, but often with the period of office so arranged that it extends over more than one parliamentary period and overlaps for different main posts.

[81] The Minister of Finance of the Netherlands has the power to issue directives to the Netherlands Bank, but the latter has the right to appeal to the Crown in the event of disagreement. The western German Bundesbank Law stipulates that the Bundesbank has to support the general economic policy of the Federal Government so far as this is consistent with its functions, or with the safeguarding of the currency. But provisions not embodied in the law state that the Bundesbank is independent of the instructions of the Federal Government within the limits provided by the Law. In the case of the Bank of Italy, the Treasury representative on its board of management can delay action pending approval by the Minister of the Treasury.

Government authority to draw on the central bank for the financing of budget deficits is greater in some western European countries than in others, but does not vary in any consistent manner with the degree of central-government influence provided by the formal arrangements described above. In Norway, where there is close co-operation between the Treasury and the central bank on all important questions of monetary and credit policy, it is illegal for the bank to become the creditor of the government. In Belgium, central bank advances to the Treasury (against government or government-guaranteed papers) are subject to an upper limit which for many years has been set at 10 billion francs. Such ceilings are a feature characteristic of most other countries too,[82] and are a legacy of traditional banking legislation, which was anxious to safeguard the bank from Treasury pressure and to limit the scope for a form of deficit finance regarded as particularly inflationary.

These rules may not have constituted a serious obstacle to the financing of budget deficits in western European countries in the post-war years. Central bank dealings in government securities other than treasury bills and advances are generally subject to less strict legal regulations. But when all is said and done the difficulties confronting the government depend less on existing legislation than on the working relationship between it and the bank. Close co-operation between the government and central bank authorities has gradually developed in most western European countries with the recognition of the intimate connexion between government fiscal operations and the management of government debt on the one hand, and monetary policy on the other. Cases of open conflict have been few.[83]

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[82] The German Bundesbank is authorized, but not obliged, to grant cash credits to the Bund up to a total of DM 3 billion. Treasury bills issued by the Federal Government are also included in this ceiling to the extent that they are placed in the open market rather than with the bank.

The statutes governing the Austrian central bank stipulate that central and local authorities may not draw on the funds of the bank for their own purposes without providing the equivalent in gold or foreign exchange. For purposes connected with cash keeping, however, the bank may at the request of the Finance Ministry discount short-term treasury certificates up to a maximum of 1 billion schillings.

In the Netherlands upper limits are also set to the advances which the government may obtain from the bank, and to the amount of treasury bills which can be sold to it.

The Bank of Italy is under no legal obligation to purchase treasury papers, but is bound by law to make advances to the government up to a limit of 15 per cent of budget expenditure. In practice, the Treasury's indebtedness to the bank has been held far below this limit.

[83] The experience of Sweden certainly constitutes an exception. On three occasions in post-war years directors of the central bank have resigned as a result of disagreement with the government. In 1959, following an increase by the bank in the discount rate, without prior government consent, the leader of the parliamentary committee responsible for the bank's operations resigned.

4. THE PUBLIC ENTERPRISES

The importance of public enterprises in the economies of western Europe is evident from even a cursory inspection of the data presented in Table 1 — which makes it at first sight surprising that a comprehensive, comparative analysis of the scope and significance of the public-enterprise sector has not apparently been undertaken. Yet the explanation is for the most part straightforward: quantitative information is often barely adequate for national analysis and, *a fortiori*, for international comparison. This difficulty partly derives from, and is aggravated by, the absence of a single, precise and manageable definition of the public enterprise.[84] For present purposes a very broad definition has been used: the term ' public enterprise ' is generally taken to refer to any economic or business undertaking owned to the extent of 50 per cent or more by central or local government;[85] it includes both undertakings directly administered by government departments, and undertakings such as public corporations and joint-stock companies in which the government is a majority shareholder.

The present study can admittedly do little more than scratch the surface of the subject; but by attempting a quantitative description of the size and structure of the public-enterprise sector, and by outlining the modes and degree of government control that are exercised over public-enterprise operations, it may give some idea both of the position of the public enterprises in the structure of the economy and of the importance of their operations in relation to current economic developments.[86]

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[84] The difficulties are manifold and the following may be stressed: statistical coverage varies from country to country; for some countries relevant data are not provided at all; and, as already pointed out above, data on public enterprises owned or managed by local authorities are not available for some countries, and in others are not distinguished in the general-government statistics.

[85] Since precise information on the share of public enterprises engaged in non-productive activities is lamentably deficient, these enterprises have not been included. While it is evident that state-owned banking and insurance companies, for instance, are important for policy implementation, common sense suggests that their omission is not serious when the size of the public-enterprise sector is measured in terms of the magnitudes chosen as indicators for the purpose of this study.

[86] The scope and nature of the contribution of the public enterprises to the industrial development of southern Europe is touched on in Chapter VII, section 3, below.

The Size and Structure of the Public-enterprise Sector

Although the origin of some public enterprises can be traced back over many centuries, the emergence of the public-enterprise sector as it is at present known has taken place in relatively recent times. The large expansion in public ownership occurred during and after the two World Wars and the depression of the thirties.

The extension of public control over postal services, rail transport and public utilities (the production and distribution of gas, water, electricity, etc.) has proceeded gradually and continuously, *pari passu* with the introduction and expansion of these services. Concern that the monopoly powers inherent in such services might be abused under private ownership has always been a powerful motive in favour of their operation as public enterprises; and the need to provide amenities for outlying regions — a type of investment not always attractive to the private investor — has also promoted the growth of public ownership in these fields. Hence the desirability of government control over services of such social importance has seldom been challenged.

The widespread nationalization measures taken in recent years, and primarily affecting industrial undertakings, in some countries sprang at least as much from political and ideological as from economic considerations. This is certainly true of the nationalization carried out in the earlier post-war period in the United Kingdom and in France. The large-scale post-war nationalization in Austria, on the other hand, principally stemmed from the particular economic difficulties — such as the enormous tasks of reconstruction and the problem of disposing of former German assets — that were experienced at that time. In the Scandinavian countries and the Netherlands the growth of state ownership has also been primarily a response to economic and practical requirements;[87] whereas in Italy and western Germany the expansion of the public-enterprise sector, which largely took place during the thirties, was influenced by a combination of political and economic considerations. In the latter country there is at present little support for the further extension of public ownership — on the contrary, the question of denationalization is under public discussion, and some transfers of public enterprises to private hands have already been effected.

It has already been stated in section 1 that, among the countries listed and on the basis of the indicators shown in Table 1, the public-enterprise sector would appear to be largest in the United Kingdom and Austria, where it accounts for about 30 per cent of total gross fixed investment, followed by Italy and France, where public-enterprise investment constitutes about one-fourth of the total. In Norway, Sweden, and the Netherlands, this proportion approaches 15 per cent, and in Belgium and Finland it is about 10 per cent.

The scattered data which it has been possible to collect about the scale of public ownership and about public-enterprise investment and employment by branches of activity are presented below.[88] They are mainly intended to convey an impression of the diffusion of public ownership throughout the economy in the countries considered, and of the degree of monopoly held by the public enterprises within various branches or industries. This, in turn, sheds some light on the scope for (and the desirability of) influencing both short-term economic movements and long-term structural change with the help of the public-enterprise sector. The way in which this possibility has been exploited in each country depends partly on the degree of effective control, as determined by institutional arrangements, exercised by central or local government over public-enterprise operations — in particular their investment activity; and partly on the shifting attitudes of governments towards using public-enterprise investment and pricing practices as tools of economic policy.

The following, necessarily cursory, review of the public-enterprise sector in selected countries may be prefaced by some summary observations which it yields concerning the fields of activity in which public ownership is important. In most countries, the provision of gas, electricity, water and transport (rail and air) are wholly or predominantly the business of public enterprises. This is also true of postal services (where the tradition of public ownership is of long standing) and, to a lesser degree, of telecommunications. The share of local government in the ownership and operation of the electricity, gas and water enterprises is considerable, particularly in western Germany, the Netherlands, Belgium, Norway, Sweden and Finland.

In the field of industrial materials and manufactures, the output of the public enterprises is important in mining. Indeed in some countries the state has a monopoly or near-monopoly in this branch, as in Austria and (for coal) in France and the United Kingdom; in others — such as Italy, Sweden, Norway, Finland and western Germany — state participation is extensive but does not amount to a monopoly. Iron and steel production is concentrated in the public-enterprise sector in Austria and to a lesser extent in Italy and Sweden. Some two-thirds of the much less important Norwegian steel industry is state-owned, whereas in the United Kingdom public enterprises at present produce about 10-15 per cent and in western Germany about 5 per cent of steel output. Nuclear research and production is usually undertaken and controlled by the state, as in the United Kingdom, France, Italy and the Netherlands. The light industries (e.g. the manufacture of tobacco, liquor, matches, margarine, etc.) constitute a much smaller share of public-enterprise output and investment than the heavy industries.

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[87] In Sweden for instance there seems to have been no nationalization for its own sake, apart from the measure taken in 1956 in respect of the Luossavaara-Kirunavaara mines. After 49 years of equal (but sleeping) partnership with private owners, the state bought out the private capital in 1956, as empowered by the original agreement of 1907.

[88] The data do not cover all industries in which public ownership exists, for two reasons: first, the information available is incomplete; and second, sometimes only those branches have been singled out which are important in terms of their investment outlays.

Public enterprises engage in a wide range of activities in Austria, western Germany, Italy, Finland, Sweden and Norway, and in Austria they also hold a virtual monopoly position in many branches. In the United Kingdom and France, on the other hand, where public-enterprise investment is important in only a few fields, public ownership is usually on a monopoly or near-monopoly basis.

The public-enterprise sector consists in some countries of a relatively small number of undertakings, each of which has, however, a prominent — if not predominant — position in the branch of industry in which it operates; in other countries the importance in any one branch is less, but the diffusion of the public-enterprise operations throughout the economy is much greater.

In the United Kingdom the public-enterprise sector has a position of virtual monopoly in railways and inland waterway transport, electricity, gas, coal, postal services and telecommunications. Since denationalization, only 10-15 per cent of the output of the steel industry has been produced by public enterprises. Public ownership is also found in some other branches of activity such as air transport, road haulage (where some enterprises were left in public hands after denationalization) and ordnance factories.

As was earlier mentioned, not far short of one-third of total gross fixed investment in the United Kingdom is undertaken by public enterprises (in both central and local ownership). The figures below indicate that more than three-fifths of public-enterprise investment is carried out by the fuel and power industries.

Indicators of the structure of the public-corporation sector in the United Kingdom

Percentages of total public corporation investment and employment

	1951		*1957*	
	Investment	*Employment*	*Investment*	*Employment*
Fuel and power	62	47	64	55
Transport and communications	19	39	28	41
Iron and steel	12	14	2	4
Other	7		6	
TOTAL	100	100	100	100

Source : National Income and Expenditure, HMSO, London 1959, p. 31; and direct communication from the British Government.

In Austria, the other country with a very large public-enterprise sector, railways, postal services and telecommunications are wholly owned by the state, as is the production of copper, lead and zinc. Output of the following products is almost entirely under public ownership:[89] iron ore and pig iron (99 per cent), steel (95 per cent), brown coal (94 per cent), energy (85 per cent), and aluminium (70 per cent). The state holds a strong position in petroleum extraction and refining and partly owns the forests. Among consumers' goods, the manufacture of alcohol, salt and tobacco is completely state-owned and the public-enterprise sector also accounts for part of the production of the engineering, electrical equipment, and chemicals industries.

The following figures for Austria show the investment and employment structure of the industrial part of the public-enterprise sector, which accounts for about one-fourth of total industrial output.

Indicators of the structure of the nationalized industries in Austria [a]

Percentages of nationalized-industries total

	Investment 1945-1957	*Employment 1958*
Iron and steel	52	43
Coal	11	13
Non-ferrous metal industries	7	6
Manufacture of electrical machinery, equipment, etc.	5	14
Manufacture of chemicals and chemical products	9	4
Other	16	20
TOTAL	100	100

Source : Data based on a direct communication from the Austrian Government.

[a] Only industries subject to the *Bundeskanzleramt, Verstaatlichte Unternehmungen*, Section IV.

In Italy the huge banking and industrial public enterprise IRI *(Istituto per la Ricostruzione Industriale)* controls the following shares of production: iron ore — 76 per cent; pig-iron — 80 per cent; steel — 50 per cent; shipyard production — 72 per cent; armaments production — 34 per cent; electric power — 25 per cent; motor vehicles — 11 per cent, etc.[90] The public enterprise ENI *(Ente Nazionale Idrocarburi)* controls 94 per cent of total methane gas production, about 20 per cent of petroleum extraction (which covers only an inconsiderable part of total consumption), about 24 per cent of petroleum refining and also a part of other petro-chemical industries.[91] The public-enterprise sector has a virtual monopoly in salt, tobacco (production and distribution), banana distribution, gas, postal services and telecommunications (direct or through IRI) and railways.

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[89] The data are for 1950. See *Österreich's Grundindustrie verstaatlicht*, Bundesministerium für Verkehr und Verstaatlichte Betriebe, Vienna 1951, p. 8.

[90] *Notizie IRI*, No. 2, 1957, pp. 5, 14 and 15.

[91] *ENI Relazione e Bilancio al 30 Aprile 1958*. ENI, Rome 1958, pp. 189 and 206.

In France, postal services, telecommunications, rail and air transport services as well as the production of electric power, gas, coal, petroleum, cigarettes, matches and alcohol are wholly or partly state-owned. Public ownership extends to some other branches of activity such as the production of motor vehicles, nitrogen, potassium, aircraft, and films. One-fourth of total investment is carried out by public enterprises and distributed over major sectors, as shown by the figures below.

Indicators of the structure of the public-enterprise sector in France

Percentages of public-enterprise total

	Investment 1955	*Employment 1951*
Electricity and gas	32	11
Coal	11	28
Railways	15	43
Other	42	18
TOTAL	100	100

Sources : Direct communication from the French Government; and M. Maillet-Chassagne, *Influence de la nationalisation sur la gestion des entreprises publiques*, Paris 1956, p. 18.

In Sweden, the state has a monopoly in postal and railway services, telecommunications, and the tobacco and liquor industries. It also owns about one-fourth of all forests and about one-half of total electricity-generating capacity. In other public-enterprise activities such as mining, peat production, catering, road transport and coastal shipping, the state competes with private enterprises. The two sets of figures presented show the distribution of public-enterprise investment by major branches and also a more detailed breakdown of the structure of the public-enterprise sector in terms of its contribution to the gross national product. The latter suggests the relatively wide spread in that country (as also in Norway) of public-enterprise activity. Just over one-seventh of total gross fixed investment in Sweden is carried out by the public-enterprise sector; of this, about one-third is investment by public enterprises owned by local authorities.

Structure of the investment of the public-enterprise sector in Sweden

A = Central Government B = Local Authorities

Percentages of total public-enterprise investment

	1938/39		*1950*		*1958*	
	A	*B*	*A*	*B*	*A*	*B*
Electricity, gas	21	74	26	74	33	77
Transport	31	26	23	26	28	23
Communications	38	—	30	—	24	—
Other	10	—	21	—	15	—
TOTAL	100	100	100	100	100	100

Source : Konjunkturinstitutet, Stockholm.

Indicators of the size of the public-enterprise sector in Sweden and Norway in 1957

A = Percentage contribution to GNP at market prices in Sweden and share in factor income in Norway

B = Percentage distribution of public-enterprise total

	Sweden		*Norway*	
	A	*B*	*A*	*B*
Agriculture and forestry	0.8	5	0.2	3
Mining	1.2	8	0.5	5
Manufacturing	4.3[a]	30[a]	1.7	18
Construction	1.0	7	1.8	19
Electricity, gas, water	1.6	11	1.2	13
Transport and communications	4.9	34	3.0	32
Other	0.8	5	1.0	10
TOTAL	14.6	100	9.4	100

Source : Direct communication from the Konjunkturinstitutet, Stockholm, and the Central Bureau of Statistics of Norway.

[a] The share of manufacturing is relatively high on account of the high rates of indirect taxation on the spirits, wine and tobacco industries.

Norwegian public enterprises have a monopoly of postal and telegraph services, railway transport and the wholesale distribution of liquor, drugs, grain and concentrated fodder; and they have a strong position in mining, electricity (over two-thirds), gas, steel, aluminium, telephone services, and air and road transport. As in Sweden, about one-seventh of total gross fixed investment is carried out by the public-enterprise sector; and about 40 per cent of this sum represents investment by locally-controlled public enterprises.

Structure of the investment of the public-enterprise sector in Norway in 1957

Percentages of public-enterprise investment

	Central government	*Local authorities*
Electricity and gas	23	67
Transport	32	15
Communications	18	—
Mining and manufacturing	16	1
Other	11	17
TOTAL	100	100

Source : Direct communication from the Central Bureau of Statistics of Norway.

In the Netherlands, postal and railway services are wholly owned by the public enterprises. The state also owns some mines, ordnance workshops and fishing harbours. The supply of gas, water and electricity is owned by local authorities, which are responsible for about 50 per cent of total public-enterprise investment. About one-eighth of total gross fixed investment is undertaken by public enterprises. The state owns part of the share capital of airlines, and of the enterprises producing salt, soda, steel, petroleum and nuclear power.

Structure of the investment of the public-enterprise sector in the Netherlands

Percentages of public-enterprise investment

	1957
Electricity, gas, water	51
Railways, postal services	26
State mines	7
Other	16
TOTAL	100

Source : Direct communication from the Government of the Netherlands.

In Belgium, postal services, telecommunications, broadcasting, rail and air transport are wholly or largely owned by the state. The water supply and, to a large extent, electricity and gas distribution are provided by public enterprises owned by local authorities. One-tenth of total gross fixed investment is undertaken by the public-enterprise sector.

Indicators of the structure of the public-enterprise sector in Belgium in 1953

Percentages of public-enterprise total

	Investment	*Employment*
Post, telecommunications and broadcasting	18	29
Railways	44	55
Air transport	9	4
Public enterprises managed by local authorities	29	7
Other		5
TOTAL	100	100

Sources : Treizième rapport relatif au problème des investissements, Ministère des Affaires Economiques, Brussels. *Bulletin de Statistique,* Institut National de Statistique, July-August 1957, pp. 1395-1397. G. Ilegems and M. Defossez, " Les recettes et dépenses publiques de la Belgique de 1912 à 1956 ", *Bulletin de Documentation,* Ministère des Finances, Brussels, September 1958, pp. 35 and 37. *L'économie belge en 1953,* Ministère des Affaires Economiques, pp. 13 and 15.

In western Germany, postal services and telecommunications, rail transport and the manufacture of spirits and matches are entirely in public ownership. In 1958 the percentage share of the public-enterprise sector in the total production of other branches was as follows: 37 per cent in iron ore, 25 per cent in coal, 17 per cent in coke, 70 per cent in aluminium, 34 per cent in lead, 45 per cent in zinc, 18 per cent in shipbuilding, 40 per cent in automobiles, 6 per cent in pig iron, 16 per cent in petroleum and 5 per cent in steel.[92] Public enterprises (owned either by central or local authorities) producing electric power and gas accounted respectively for 62 per cent and 91 per cent of total output.[93]

In Finland the public-enterprise sector also encompasses a wide range of activities. The central government holds a virtual monopoly position in railway and air transport, postal services and the production of liquor. Public enterprises also operate in shipbuilding, metal-working, mining, ordnance production, oil refining, chemicals, electric power, forestry, timber cutting and manufacturing, margarine production, etc. Investment by public enterprises is a lower share (9 per cent) of total investment than in any of the other countries listed in Table 1. The breakdown of investment shown below suggests that all public-enterprise investment in power, gas, and water in 1957 was undertaken by those owned by local authorities, whereas investment in transport and communications was mainly concentrated in those owned by the central government.

Structure of the investment of the public-enterprise sector in Finland in 1957

A = Central government B = Local authorities

Percentages

	A	*B*
Agriculture and forestry	11	2
Power, gas and water	—	79
Manufacturing	0	2
Transport and communications	89	14
Other	0	3
TOTAL	100	100

Source : Central Statistical Office of Finland, *Tilastokatsauksia,* No. 1, Helsinki 1959, pp. 64-65.

Government Control of the Public Enterprises

The nature and degree of the control that governments possess depends on numerous factors. Among the most important of these are the forms of organization of public enterprises, but there are also other institutional factors which may limit the government's room for manœuvre: the constitutional framework of the state; precedents and tradition; political attitudes. And even such imponderables as the ability, initiative or willingness to compromise of government and public enterprise management cannot be discounted.

Public enterprises in western Europe exhibit many diverse forms of organization, which can be classified into three main types; (a) those which are directly operated as agencies of government departments; (b) public corporations; and (c) joint-stock companies in which the government is the majority shareholder.

Government departments, or their agencies, as a form of organization for public enterprises have generally been preferred for three activities: postal services, telecommunications, and railway transport. These are operated in this way, for example, in Austria, western Germany, Norway and Sweden. In the United Kingdom, the Post Office (including internal telecommunications) is a government department; whereas railway transport and international telecommunications are run by public corporations.

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[92] The data shown are derived from a direct communication from the Government of the Federal Republic of Germany and do not include the output of public enterprises operated by local government.

[93] See *Notes et études documentaires,* La Documentation Française, Secrétariat Général du Gouvernement, No. 2603, 2 December 1959, p. 3.

The public corporation is a form of public ownership, first and farthest developed in the United Kingdom, which is designed to achieve some balance between, on the one hand, the flexibility of management and independence from detailed control enjoyed by private enterprise, and, on the other, the need for public accountability. Three features of the public corporation may be distinguished as relevant here. First it is an independent corporation with separate legal identity. Second, its administration is entrusted to a board of management which is appointed by government. Third, the public corporation is responsible, via its board of management, to the minister for the industry to which it belongs, and receives general instructions from him; he, in turn, is responsible to parliament for the activities of the public corporation.

The joint-stock company, probably the most widespread type of public enterprise in the countries studied, differs from private companies of similar type only to the extent that central or local government is the majority shareholder. This form of public ownership has sometimes emerged in consequence of considerations of political convenience, sometimes simply by historical accident.

The form of organization chosen for the public enterprise, and the degree of governmental control over it, appear to be closely related to the type of economic activity in which it engages. When the public enterprise has a monopoly of its product or service, the case for far-reaching governmental control is strong: such monopolies frequently provide goods or services which are considered of vital importance for the social or strategic purposes of government. And even when the public enterprise has not a monopoly, but serves other than exclusively economic or commercial ends, the degree of government control is usually great. Yet this consideration must be balanced by the need to grant public enterprises sufficient independence from government supervision to afford them some flexibility in a competitive market.

The strength with which historical experience, or traditions, affects the relations between government and public enterprises is difficult to assess; yet it is plain that such factors are more influential in some countries than in others. In Norway and Sweden, for example, the traditional power and independence of local authorities has had as a result the extensive ownership of public enterprises by these bodies, thus swelling the share of the public sector independently owned and managed by local government. The federal structure of western Germany has also affected the degree of central-government control over the public-enterprise sector.

In the following summary account of the institutional framework of the public enterprises in selected countries, attention has been centred on those public-enterprise operations most liable to government control: investment, investment finance, and prices.

Public enterprises in the United Kingdom, with the principal exceptions of the Post Office and Royal Ordnance Factories, are not operated as administrative agencies of the government, but as public corporations. By far the largest part of British public corporations was created by means of the nationalization of existing enterprises, whose statutes of establishment prescribe in general terms the scope of government controls over them. " On matters affecting the national interest " the appropriate minister has permissive, but not mandatory, authority to intervene. Ministers have, in practice, preferred " making their views known " informally to the public-corporation boards to issuing formal directives. Parliamentary control is in turn exercised by questions directed to the appropriate minister on the floor of the House, through the investigations and reports of the Select Committee on Nationalized Industries, and through parliamentary debates on the annual reports of the public corporations. The problem of devising a system of effective control while at the same time avoiding detailed interference in day-to-day decisions has not yet been satisfactorily solved.[94]

The Treasury has at its disposal a further weapon in the government's armoury of instruments of control. Besides its responsibilities for the technical procedures of public-enterprise borrowing, within the limits set by parliamentary statutes,[95] the Treasury must be consulted on both the structure and timing of investment. Final investment decisions are taken after tripartite consultations among representatives of the nationalized industries, the appropriate ministry, and the Treasury. A Treasury representative is also chairman of the departmental committees in which the co-ordination of the investment programmes of the public corporations is debated and determined.

Prior to 1956 the public corporations were empowered to issue their own stock on the market, subject to the Treasury's guarantee of principal and interest; but since then the public corporations have applied directly to the Exchequer for loans. In effect, both methods have allowed the Treasury to exercise considerable control over the public-corporation boards and responsible ministers. The internal funds of the public corporations, such as depreciation allowances and profits, if any, remaining after meeting interest charges or deficits carried over from previous years, are freely available to the corporations — subject only to the minister's statutory rights in matters involving "substantial capital outlay" or "the national interest".

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[94] The Parliamentary Select Committee on Nationalized Industries has pleaded for an increase in its technical staff in order to enable it to analyse the accounts of the nationalized industries with greater thoroughness; but it is reported to have flatly rejected suggestions that a Comptroller and Auditor General of Nationalized Industries be appointed. Cf. *The Observer*, London, 24 January 1960.

[95] Borrowing beyond statutory limits requires parliamentary authorization.

The same statutory clause determines very broadly the extent of government control over the pricing policies of the public corporations. Although their general instruction is to "pay their way", the public corporations may be obliged to neglect this aim if the minister appeals to the 'national interest' clause. It is noteworthy that whereas existing legislation prohibits British public corporations from making a loss "taking one year with another" — to quote the language used — it does not prohibit the making of profits. And profits, when earned (except for that part paid out as taxes) cannot be claimed by the Exchequer. Broadly speaking, the pricing policies pursued by public corporations are governed more by the potential recourse of the minister to the 'national interest' clause, and by the sensitivity of their boards to public opinion, than by explicit governmental intervention.

Although the public-enterprise sector in Austria is large (and comprises more monopolies than elsewhere) it has greater independence from governmental control. The investment and concomitant finance plans of each nationalized enterprise are drawn up by its Board of Administration *(Verwaltung)* and submitted for approval or amendment to its Board of Supervision *(Aufsichtsrat)*. The Board of Supervision is composed of members appointed by the responsible ministries. Among these members are representatives of industries which are important customers of the public enterprises.

The investment plans of the nationalized industries are in principle co-ordinated by the government; but since the government can issue only recommendations and not mandatory directives, the nationalized industries themselves have the last word. The bulk of the investment of the Austrian nationalized industries is financed from their profits. During the period 1945-1957 the sources of their investment finance were: European Recovery Programme — 28 per cent; government — 4 per cent; own resources — 68 per cent. Although the nationalized electricity industry does not earn profits (prices being set so as just to cover costs of production), its dependence on direct government financing is negligible, for most of its funds have been obtained from the European Recovery Programme, the World Bank or market borrowing. Other public enterprises, such as state monopolies, railway transport and postal services, are much more financially dependent on government.

Since the early post-war years, when reconstruction led to close government regulation of public-enterprise operations, the nationalized industries would appear to have acquired growing independence. This may be explained by their important export trade (accounting for 28 per cent of total Austrian exports in 1958) for the conduct of which a high degree of flexibility in international marketing is desirable. The pricing policies of the public enterprises are subject to close governmental control. Detailed parliamentary scrutiny of the operations of the public-enterprise sector is based, *ex post facto*, on the reports of the Public Auditing Board *(Rechnungshof)*.

Pressures in France for active government participation in the economy have been strong for several generations. In more recent times, the outcome of the reconciliation of this long-standing tradition with special demands of the trade unions has been the "three-tier" experiment in the organization of the public enterprise, with the state, the workers, and consumers represented in its management. But the experiment has not prevented the growth of tight and comprehensive state regulation of public enterprise operations.

French public enterprises belong to one or other of two main categories: government departments or offices *(services publics)* and public enterprises *(entreprises publiques)*. The basis for this distinction is administrative and the main criterion has been the degree of financial dependence on the government (the *services publics* have been subsidized to a considerable extent from budgetary sources). Thus some industrial enterprises are included in the first group together with such services as theatres and hospitals. Nationalized enterprises belong to the second group.

Public enterprises are generally subject to close and comprehensive government control of investment, wage and pricing policies. Their investment plans are submitted to the *Commissariat du Plan*, with which the plan is discussed in co-operation with both the ministry responsible for the public enterprise and the Ministry of Finance. Investment is in the first instance financed from the enterprise's profits and then by public borrowing; if additional resources are required, loans are generally granted by the *Fonds de Développement Economique et Social*. Since about one-fifth of total public-enterprise investment is financed by this fund, this is a further point at which the government can regulate the flow of investment. Conversely, when the government seeks to stimulate economic activity, the investment programmes of public enterprises are readily capable of upward revision. Although the main objective has been to carry out investment programmes in the public-enterprise sector in conformity with long-term goals, French governments have on occasion adjusted the year-to-year shape of these programmes in accordance with the requirements of short-term stabilization policies.

All wage and salary decisions taken by French public enterprises have required the sanction of the *Ministère des Affaires Economiques* since 1953. Government control is also exercised through the *Commission de Coordination des Salaires des Entreprises Publiques,* composed of representatives of the Ministries of Finance, Economic Affairs and Labour as well as those of the ministry responsible for the public enterprise in question. As its title suggests, this committee tries to co-ordinate public-enterprise wage policies and relates them to government price-stabilization policies. Not all public enterprises are subject to detailed government control of their pricing policies, but government decisions play a major role in shaping them. Some public enterprises submit proposals to their ministries, and the prices are then set directly by the latter. When government decisions involve the public enterprises in a loss, the necessary subsidies are granted from budgetary sources.

Public enterprises in Italy do not fall neatly into the three types which have been distinguished throughout this section; but they can none the less be classified in three major groups according to their institutional setting.[96] The first group consists of autonomous corporations *(aziende autonome)*, among the most important of which are the railways, the salt, tobacco and banana monopolies, the corporation for motorways and the corporation for telephones and telegraphs. These corporations — as their title implies — enjoy some financial and technical autonomy, but they have no independent legal standing and their budgets are in the form of annexes to the central-government budget. The second group is composed of the municipal corporations *(aziende municipalizate)*. These are the counterpart, on the local plane, of the autonomous corporations on the national plane; for they enjoy some autonomy in technical matters, but do not appear to have any independent legal standing, being part of the local-government administration. As a rule they provide public services (electricity, gas, water, roads, etc.).

The third and most important group is constituted by the so-called state economic participations — *(partecipazioni economiche)* which have the legal form of financial holding-companies or joint-stock companies and have this common feature: they are bodies with independent legal status through which the state engages in business activity.[97] This group comprises a great number of subordinate enterprises in which public and private capital is mixed so that sometimes the former and sometimes the latter preponderates. In recent years this group of holding-companies has undergone a certain reorganization, with the creation of new financial holdings on the one hand, and of the Ministry for State Participations on the other. At present many of the " state participations " belong to one of five groups, each of them under the control of a financial holding-company. The five financial holdings are: IRI, ENI,[98] and three others established in 1958 for mining, cinematographic and curative-water corporations respectively.[99] The capital of a holding is in the form of an " endowment fund " set up by the state and its president is appointed by the government. The power of taking decisions affecting their operations (investments, prices, etc.) is vested in the companies and their financial holdings, not in the Ministry for State Participations.[100] As the owner of the capital of the holdings the Ministry has broad powers of control and of direction; moreover it approves their balance-sheets and appoints the administrators and is obliged each year to submit a report to parliament on the situation of the state economic participations.[101]

Sweden is a good example of a country in which the criteria governing the relations between government and the public enterprises are based almost exclusively on the types of activity and needs of the latter. Postal services, telecommunications, railways, crown lands and forests, electricity generation and supply are all directly administered by government departments and are thus subject to current parliamentary control in matters of investment (and the use of funds available for investment), prices, wages, conditions of employment, etc. But considerable freedom of price determination is granted to those enterprises (e.g.

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[96] This classification excludes the banking and insurance sector. For a comprehensive investigation of public enterprises in Italy, see Ministero per la Costituente, *Rapporto della Commissione Economica,* Industria, I. Relazione, First Volume, pp. 347-388. See also *Pubbliche imprese e partecipazioni statali nelle imprese private,* Comitato Interministeriale per la Ricostruzione, Rome 1955.

[97] See, for detailed illustration, G. Cosmo, " State Participation in Business Concerns in Italy ", in *Banca Nazionale del Lavoro Quarterly Review,* October-December 1951, p. 202, *et seq.*

[98] For details about IRI and ENI, see p. 31 above.

[99] These three financial holdings have not yet started to operate.

[100] The Government may, of course, control the prices charged by these companies, as it may control the prices of private companies (e.g. the tariffs for electric energy).

[101] The Ministry was created at the end of 1956. At the same time an interministerial committee was established for coordinating the actions of the Ministry of State Participations with those of the other ministries. The question of the respective powers of the Ministry of State Participations on the one hand and the holdings and the companies on the other is still subject to controversy and different interpretations. For instance, it has been observed that a clause inserted in a parliamentary law which requires the IRI and ENI to concentrate 40 per cent of their total investment in the south since 1958 is not consistent with the autonomy of these companies. (See S. Cassese, " Investimenti nel Mezzogiorno e principi di gestione delle imprese pubbliche ", *Il Picentino,* 1958.)

crown lands and forests, electricity) which have to compete with private enterprise.

Close parliamentary control of public enterprises organized as joint-stock companies is exercised only at the stage when the shareholding is acquired (or the company launched) or when the share capital is expanded: in both cases parliamentary consent is required. Decisions of investment policy are taken by the management of the enterprise subject to the approval of the shareholders' assembly, which includes the ministry's (or ministries') representatives.[102] The government directly sets only the prices charged by joint-stock companies wholly owned by it and having monopolies of their products and services, e.g. tobacco and liquor.

In Norway the institutional framework of the public-enterprise sector is broadly similar to that in Sweden, with this difference: there are more numerous forms of public-enterprise organization, with varying degrees of managerial independence. Parliamentary control appears to be greater in Norway than in either Sweden or the United Kingdom.

Government in Belgium wields a wide degree of control over the expenditure — and in some cases the management — of public enterprises. Enterprises under government control, such as those operating telecommunications, railways and inland waterways, draw up investment plans, which they submit for central-government approval. Enterprises subordinate to local authorities — municipal transport, electricity, gas distribution, and some gas production — are indirectly subject to the control of the central government; for its closely supervises the administration and finances of local government.

The status of the public enterprises and the form of government cont ol are the product of the haphazard historical multiplication of special bodies, funds and enterprises. It was not until 1954 that legislation made it compulsory for almost all enterprises directly subordinate to the central government to submit annual budgets and accounts which have to be approved either by parliament or — more usually — by the minister to whom the enterprise is responsible. The government has representatives on the boards of all public enterprises, one of whom reports to the Ministry of Finance on all operations which have financial and budgetary implications. The Ministry of Finance also controls all public-enterprise borrowing and the expenditure of the liquid funds held by public enterprises. Certain enterprises which engage in large-scale investment programmes are also obliged to keep the Minister of Finance informed of their outstanding expenditure commitments.

How far society endorses or rejects the doctrine of economic *laisser-faire* has also done much to shape the relationship between the government and the public enterprises. In western Germany public support for government intervention by means of public enterprises has been lukewarm since the war. As a result, the public enterprise in that country has little more than the status of an agency for the commercial management of state assets; apart from those public enterprises which have monopolistic positions (the *Bundesbetriebe*) — such as postal services and railway transport, and which therefore receive specific instructions from government on their investments, finance, tariffs, etc., public enterprises are remarkably free from government intervention. Joint-stock companies in which the government is a shareholder conduct their activities on the same principles as private enterprises and must only ensure that the government holding is secure. The operations of local-government enterprises are controlled by local authorities which are independent of central-government regulation.

The Role of Public Enterprises in Government Short-term Economic Policies

The very size of the public-enterprise sector in many countries exerts a powerful effect, whether or not it is centrally steered, on the pace and pattern of economic growth. In influencing public-enterprise operations — in particular investment and price policies — governments attach primary importance to considerations of social welfare, structural change and long-term economic growth. However, the discussion which follows is confined to the experience of, and the possibilities for, using public-enterprise investment and pricing activities for the purpose of short-run stabilization policies.

During the post-war period the authorities in a number of countries seem to have used public-enterprise investment as an instrument of counter-cyclical policy. How far their use of this instrument has met with success may be measured in one way by variations in public-enterprise investment as a share of gross national product, as shown for a few countries in Chart 4.

The British Government held the view in the early post-war period that the investment of public corporations could be used as a tap to be turned on and off according to the requirements of short-run economic stability. Gradually, however, it came to be recognized that only limited results could be achieved by this means, for once an investment project is approved, contracts let, and work begun, technical factors determine the pattern of expenditure over a fairly long period of time, and this is often difficult or very wasteful to alter. Thus, while cuts in certain investments were occasionally made on paper, the situation and the

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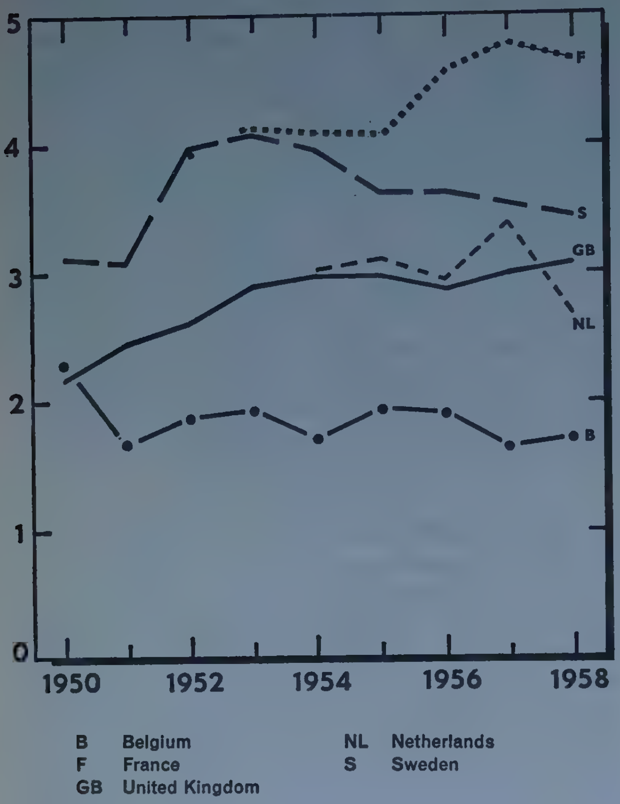
[102] Sometimes, however, funds granted by Parliament may be made conditional on certain action being taken by the enterprise.

CHART 4

Shares of public-enterprise investments in gross national product

Percentages



Sources and methods : See notes to Table 1; and Appendix B.

NOTE. — For the United Kingdom, public corporations.

concomitant policy requirements had changed by the time the cuts would have materialized, and for some other projects either a cut or even a slow-down was avoided, as far as possible, in the light of longer-term priorities. It was found easier, on the other hand, to speed up public-enterprise investment than to slow it down.[103] Although public-enterprise investment expenditure in the United Kingdom cannot, therefore, be described as an effective counter-cyclical weapon, particularly for purposes of restraint, it has lent stability to total investment. Proceeding, as it did, under its own steam and with little regard to factors influencing private investment decisions, it probably prevented total investment from fluctuating as much as it would otherwise have done.

In France, where the government exerts close and comprehensive control over public-enterprise investment, investment decisions have been frequently influenced by short-term economic considerations; and investment programmes have accordingly been cancelled, launched, postponed, or speeded up. Changes in public-enterprise investment plans have been made in close co-operation with, and on the advice of, the *Commissariat du Plan* which — in the full knowledge of planned long-term investment priorities and the economic interdependence among individual industries — has helped to introduce short-term changes in investment with the minimum hindrance to the achievement of long-term objectives.

Sweden is another country in which efforts have been made to adjust to short-run economic requirements the investment of public enterprises — or at any rate of the enterprises run by government departments. When, in 1954, the aim was to restrain public investment, the investment of public enterprises run by government departments was reduced by 4 per cent (at current prices which were, however, fairly stable). This came hard on the heels of an average annual expansion of 25 per cent from 1951 to 1953 (when investment costs may have risen by an average of 7 to 8 per cent), which was itself the outcome, in turn, of efforts to stimulate economic activity. There was a further slight drop in 1955, a year of restraint in government investment activity. Nor do the requirements of government economic policy appear to have been a negligible factor in the investment activity of joint-stock companies owned totally or partly by the state. The investment of this group of public enterprises also fell substantially in 1954; but a large increase — which ran counter to government policy intentions — took place in 1955.

In the Netherlands and Belgium, public-enterprise investment has also been used as a short-term stabilizing instrument. The Dutch programme for restraint, in 1957, reduced public-enterprise investment, and this resulted in a quite marked decline in the share of public-enterprise investment in gross national product in 1958 (see Chart 4). In Belgium, as is shown in Chapter VI, section 2, public-enterprise investment has been repeatedly used as an important tool for counter-cyclical policies.

In Finland the major part of public-enterprise investment (and of government investment in general) has been intended to achieve anti-cyclical effects within the framework laid down in the unemployment law. Thus most of the construction of new railroads has been financed, since 1953, from special unemployment allowances included in the annual budgets. Forestry work has also sometimes been speeded up during periods of rising unemployment. Early in 1950 a committee was established under the chairmanship of the Minister of Commerce and consisting of all the managing directors of state-owned joint-stock companies. The task of the committee has been to manage the investment plans of these companies so as to achieve some counter-cyclical action; but rather little has been accomplished in this way.

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[103] In the summer of 1958 the Treasury let it be known that it would favourably consider additional investment schemes by public enterprises and the response of the boards of nationalized industries was reasonably prompt.

In Austria, where — as was seen — the public-enterprise sector has monopoly positions in many branches of industry, the potential effectiveness of using public-enterprise investment as an instrument for stabilization policies would appear to be great, but such considerations are of comparatively small importance in determining the investment policies of nationalized industries. Until recently, little use was made of the public sector to influence short-term economic developments in western Germany. This has also applied to the attitude towards public-enterprise operations ; apart from occasional appeals to slow down investment expenditure at the height of the boom, the official attitude towards public-enterprise operation has been far from interventionist.

The extent to which public-enterprise investment can or should be used as a tool for influencing short-term economic developments depends on a variety of factors and limitations. In the first place, it depends on the degree of central control that government exercises over the investment decisions of public enterprises, as has been described above. The possibility of effective action would appear to be greater in the case of enterprises with a monopoly or near-monopoly position than of those which operate in competition with private enterprises in the same branch of activity. But in so far as public enterprises are under local-government control (which is frequently the case for the electricity, gas and water supply) and local authorities act more or less independently of central direction (see section 3), the scope for varying public-enterprise investment in a counter-cyclical way is reduced.

In the second place, the possibility of varying the pace of investment expenditure is limited by the technical factors already referred to in connexion with British experience: it is difficult and sometimes costly to slow down the pace of an investment project once it is under way, and it takes time to plan and start a new investment project. Another determining factor is the flexibility of capacity limits: during a boom period the expansion of capacity can be postponed without much inconvenience if output from existing capacity can be increased.

Even assuming that there are favourable institutional and technical possibilities for varying the rate of investment outlays, there remains the fundamental problem of a conflict between short-term policy aims and long-term goals if an investment project has been given a high priority in terms of the latter. And finally, some governments have preferred to leave the investment decisions of public enterprises to the managements of the enterprises themselves, whatever the possibilities in practice of central guidance or control.

From all the points of view considered it would thus appear that the scope for postponing or accelerating public-enterprise investment programmes would be greatest for transport and communications and among some of the public utilities. Investment in transport and communications generally accounts for between 30 and 70 per cent of total public-enterprise investment in the highly industrialized countries of western Europe. They are most closely controlled by central government and usually hold a monopoly position. The flexibility of capacity is greater for railways, postal services, and telecommunications than for electricity and industrial materials; and little or no harm is done from the point of view of long-term objectives if such investment projects as the electrification of railways or the modernization of postal services are temporarily postponed.[104] But, apart from technical difficulties, it would be economically undesirable for the investment projects of enterprises producing basic materials or power [105] — plainly of salient importance for long-term economic expansion or structural adaptation to changing demand — to be made subject to short-term considerations.

As one of their policy instruments a number of countries have also chosen at times to exercise direct influence on the price level in order to gain time in their struggle against a price-wage spiral. This has been done by means of subsidies on consumers' goods; and by attempts to hold public-enterprise prices in check (either through subsidization or direct control) and to influence the timing of such increases as were made. Such policies have been pursued at one time or another, and to a varying extent, in most countries of western Europe — particularly in those where wages have been tied to some price index and automatic repercussions on the wage level have been feared from increases in the price level. But in France [106] and Finland this direct attack on price increases has been used more extensively than elsewhere.

Two principal arguments have been advanced in favour of this policy: first that the importance of public-enterprise products and services in industrial costs of production and in the cost of living is bound to influence the general level of prices; and, second, that it is helpful to set an example of price restraint to the private sector. The policy has nevertheless had various drawbacks: it has imposed a heavy burden on the budget, and when the increase in government expenditure on subsidies has been substantial, it has reduced the budget savings surplus. When price-stabilization policy has been achieved by means of the direct regulation of public-enterprise prices, it has often had the effect of delaying investments which were perhaps essential or desirable from a long-term point of view. But probably the main weakness of such a policy is that the increase in effective demand (or at least the failure to reduce it) which is a concomitant of price reduction or stabilization means that it will usually not be possible to keep prices in check for very long. This has proved to be the case in France, where — in spite of all the efforts to prevent prices from rising, including the regulation of public-enterprise prices — the increase in the price level in 1955 and 1956 was more rapid than in most other western European countries. In Finland, too, the measures taken in 1954 to reduce the cost-of-living index included the regulation of public-enterprise prices. They at first succeeded in holding the cost of living in check, but failed to prevent wages from creeping upwards; and in 1956 there were sharp increases in both money wages and the cost of living.

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[104] Investments of this type were among those chosen for the Austrian long-term investment plan, which was conceived as an instrument for counter-cyclical investment variations.

[105] The latter accounts for 25 per cent to 50 per cent of total public-enterprise investment.

[106] The share of tobacco, cigarettes, coal, electricity, gas, transport and communications — all supplied by public enterprises — in the total consumption of households accounts for about 9 per cent.

CHAPTER VI

THE PUBLIC SECTOR AS A TOOL FOR SHORT-TERM ECONOMIC POLICY

This chapter is based on the information presented in Chapter V, and is concerned with the influence of public-sector operations on short-term fluctuations in employment, production, prices and the foreign balance — an influence which may be haphazard or deliberate but which is always present.

Although the focus is on budgetary policy, it has to be appreciated at the outset that no clear-cut distinction between budgetary and other policy instruments can be drawn; in particular, the border-line between budgetary and monetary policy is vague.[1] Moreover, budgetary policy — since it is just one among many types of policy instrument available — has to be co-ordinated with others to contribute its best towards the major goals of economic policy. One of the most striking developments within the field of public finance over the last generation has, in fact, been the widespread recognition that problems of budgetary policy, and especially of compensatory finance, cannot with any hope of success be dealt with in isolation, but have to be tackled within a much wider framework.[2]

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[1] The difficulty stems mainly from Treasury debt operations. Traditionally, measures intended to influence the supply of money or the debt and claim structure are thought of as belonging to the core of monetary policy since they are always in the foreground of central bank actions. However, almost any budget will also have precisely these effects. Only when government cash outgoings happen to coincide with the amount of cash withdrawn from other sectors will the money supply be left unaffected; and state lending and borrowing influence the claim structure. Possibly the best method of contrasting budgetary with monetary policy is to note that although all entries in a budget necessarily influence the money supply, and some also the claim structure, this is usually not their *primary* purpose. In most cases some more specific purpose prevails, and only when this is the case is a measure to be considered as budgetary. This leaves 'debt management' transactions, including state borrowing, to be classified as monetary policy; and budgetary instruments in this study are thus taken to mean tax rates and rules defining objects of taxation, the volume of general-government purchases of goods and services, general-government transfer payments (current and capital), government lending (whether channelled through the budget or through state banks or through specialized public funds) and, finally, investment by public enterprises.

[2] See, for instance, the approach in Bent Hansen, *Finanspolitikens ekonomiska teori*, Uppsala 1955; J. Tinbergen, *On the Theory of Economic Policy*, Amsterdam 1952; and *Economic Policy : Principles and Design*, Amsterdam 1956; various articles and memoranda by Ragnar Frisch on the " decision-model " of the Oslo University Economic Institute; H. Theil, *Economic Forecasts and Policy*, Amsterdam 1958; and, as an example of the treatment of compensatory finance in a modern textbook, Richard A. Musgrave, *The Theory of Public Finance*, New York 1959.

1. BUDGETARY POLICY: ITS ECONOMIC SETTING

Economic Models — the Relationships between Targets and Instruments

An essential preliminary to an effective economic policy is a reasonably certain knowledge of how the economy works, sufficient to judge both the extent to which individual objectives are compatible and the likely effects, in given circumstances, of the means which might be applied to achieve them. One possible approach to this knowledge — developed to a greater degree of elaboration in the Netherlands than in any other country so far — is via the construction of a 'model' of the economy, that is, a set of equations intended to describe with sufficient accuracy the way in which the economy works. For simplicity of exposition, the model may be assumed to consist of the four equations (though about thirty are in fact in use in the Netherlands):

$$\begin{aligned} a_{11}x_1+a_{12}x_2+a_{13}x_3+a_{14}x_4&=a_{15}\\ a_{21}x_1+a_{22}x_2+a_{23}x_3+a_{24}x_4&=a_{25}\\ a_{31}x_1+a_{32}x_2+a_{33}x_3+a_{34}x_4&=a_{35}\\ a_{41}x_1+a_{42}x_2+a_{43}x_3+a_{44}x_4&=a_{45} \end{aligned}$$

The 'a's, or parameters, are either constants or exogenous variables assumed to be determined outside the system; the 'x's, in contrast, are endogenous variables whose values are explained by the values of the parameters. Since the number of endogenous variables equals the number of equations, the system (provided that the equations are independent and consistent) has a unique solution in the 'x's: in other words, for any given set of values of the 'a's (some of which may be zero) the value of the 'x's will also be given.

Among the 'a's there are usually some whose values can be directly controlled, if only within limits, by a policy-making authority; and such parameters may be called economic instruments. Changes made in these controlled variables are hereafter referred to as *measures* taken by the policy-makers. An economic *target* is a restriction placed upon an endogenous variable:[3] for example, that the variable x_1 (say employment) shall assume a given value $\overline{x}_1$.

Among the potentially available instruments there may be some which the policy-making authority deliberately abstains from using. The reasons why an instrument is considered inadmissible may be found in the strength of public opinion, group pressures, or in the prejudices or taboos of the political party in power, or they may arise from prevailing institutional shortcomings. In other cases restrictions on the use of certain instruments may originate in circumstances which it is largely outside the power of the policy-making authority to change: for example, the limitations imposed by accepted codes of international behaviour on the use of exchange rates, import controls or controls over international capital movements. Whatever the reasons, the negative bias towards the use of some instruments may be felt so strongly that the avoidance of them virtually becomes one of the targets of the policy-making authority. This has been increasingly the case with regard to the application of direct controls. Hence the distinction between targets and instruments is not an absolute one.[4]

A typical problem of policy-making may be formulated in the following terms. Supposing that a number of targets are set, and that in a given situation these targets are not reached, the task is then to change the value of one or more of the parameters in such a way that the restrictions placed on the 'target' variables are satisfied. In so doing the policy-maker has to accept that only some of the parameters — the admissible instruments — are variable at will and even those in most cases only within limits. Whether there is a solution to such a problem will depend partly on the working of the economy as described by the model, partly on what the targets actually are, and partly on the number and flexibility of the available instruments — budgetary and others.[5]

The freedom of manœuvre of the policy-maker is greatly increased as the number of instruments available to him increases. With more instruments than targets, not only may he choose in a given situation which of the potentially available instruments he wants to use but he may also find numerous ways in which the chosen instruments can be combined to produce the desired results. Thus, greater flexibility results as new instruments are added and — since one instrument may usually be made to support another — less drastic application of each chosen measure may be called for to obtain a given result. One illustration is the highly successful use by Norway in 1955 of budgetary instruments in combination with monetary policy and direct controls — altogether some ten different measures (see section 2) — to achieve a selective cut in investment. The same result could certainly not have been achieved by means of one single instrument, such as a rise in the interest rate.

However, it is also possible that in some situations " one stone will kill more than one bird ", since a number of targets may be attainable by one or a few instruments. In economic terms, two main cases may be distinguished. First, there is at least a theoretical possibility that the working of an economy may be such that one or more of the main targets (say full employment) is always automatically attained.[6] Of much greater practical importance is the case in which, although the free play of market forces cannot be relied upon to produce always the desired results, the structure of the economy is nevertheless such as to make the achievement of one target automatically imply the attainment also of one or more of the others. For instance, if full employment and price stability are the main targets, it is conceivable — and certainly this is an assumption which has underlain much of the policy-making of the early fifties — that a necessary and sufficient condition for price stability is that total demand be kept at a point corresponding precisely to full employment. If so, any instrument — budgetary or other — by which total demand can be controlled would suffice to achieve the two desired goals.

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[3] Not infrequently restrictions on the endogenous variables will be given as *boundary conditions*, implying that limits are given which an endogenous variable (say the balance-of-payments deficit or surplus) must not surpass. Another alternative is to define a " target index " or " social welfare function " whose value depends on the values of all endogenous variables, i.e. $(x_1 ... x_n)$. In this setting the task will be to seek the maximization of this index.

[4] A fact which, in terms of the social welfare function, is sometimes recognized by including the instruments together with the targets among the arguments of the function.

[5] A number of different situations are conceivable, some of which are of great economic significance. Assume that two " fixed " targets are set. Mathematically speaking, these two target restrictions, say $x_1 = \overline{x}_1$ and $x_2 = \overline{x}_2$, together with the original four equations, mean that we are left with six equations and that the number of unknowns has been increased by the number of admissible instruments. The various possibilities may now be classified as follows: first, there is the case where these six equations are independent and consistent. In this situation, the system will have one, none or an indefinite number of solutions depending on whether the number of admissible instruments is equal to, smaller than or larger than the number of targets — a solution meaning, in the *technical* sense, that a set of values can be found for the instruments which is consistent with the given target values $\overline{x}_1$ and $\overline{x}_2$. Some of these solutions may, however, require the instruments to take on values far outside the existing limits for their practical applicability, i.e. they may be *economically* impossible. (Such, for example, would be a " solution " calling for government expenditure to be cut quickly by one-third, or for the interest rate to be raised to 20 per cent.) Secondly, the six equations may be inconsistent, which will mean that no solution exists. In economic terms this is the case of " conflicting targets", where no values of the instruments can be found which will cause all given targets to be simultaneously reached. Thirdly, the six equations may be dependent, which will mean that a solution can be found even when the number of instruments falls short of the number of targets. Illustrations of all these possibilities are given in the text.

[6] For instance, it was generally believed at one time that the economy would always tend towards a state of full employment (this was taken to follow from the assumption of a flexible wage rate) and that the price level was uniquely determined by the quantity of money. If this model had represented a fair description of the underlying reality, it would have followed that the two targets of full employment and stable prices were attainable by one instrument, viz., some device by which money supply could be controlled. In general, the more it is believed that the free forces of the market will always produce desirable results, the less will be felt the need for developing a large range of selective instruments.

At the other extreme is the possibility that the given targets may not be reconcilable. Conflicting targets may be said to exist in a situation when — the structure of the economy being what it is — not all the given targets are simultaneously attainable by the instruments actually in use. Thus, apart from situations when targets have been chosen in such a way that they are physically impossible of simultaneous achievement, 'conflicting targets' is a relative concept. To put it differently: whether in a given situation a given set of targets can be reached is not entirely a question of how the economy works, it is equally a question of the types of instruments considered admissible and the limitations set to their application.[7] It may happen, for instance, that the targets which are not reconcilable under one set of economic-political practices would become attainable — without any drastic institutional changes being necessary — if new weapons were added to the policy-makers' armoury, or existing instruments were used more vigorously. However, a conflict of targets may have its root also in the structural characteristics of an economy, and thus call for changes in the institutional or conventional features of the economy which may be very difficult to achieve.

It is sometimes implied that each instrument serves for the attainment of one specific target — for example, that the maintenance of price stability is a task to be especially assigned to the monetary instruments leaving budgetary and other instruments free to attend to other targets. However, since any measure taken will normally directly or indirectly affect all target variables (in terms of the model, the value of any 'x' depends on that of all the 'a's), such an assumption is entirely unrealistic. The problem is rather how to combine instruments in a way which, by taking into account the interdependence of economic variables, will secure the simultaneous achievement of all reconcilable targets.

In the light of the above, differences among countries in their approaches to problems of economic policy-making and management can be seen as stemming from four main causes. First, significant differences in economic structure may well have justified identical disturbances being met by different prescriptions. But apart from this, differences in approach may also have originated from, secondly, differences in targets, and in relative weights given to common targets; thirdly, differences in ideas held by responsible authorities about the working of economies, which in turn may lead to differing views on the efficiency of given instruments; and, finally differences in instruments used, whether due to institutional obstacles or to varying opinions as to which instruments are 'admissible'.

A detailed examination of the structural characteristics of individual western European countries is outside the scope of the study; but some inter-country comparison of the targets, the economic thinking and the budgetary instruments of the fifties is a useful preliminary to the analysis of country experiences contained in section 2.

The Targets of the Fifties

Three facts stand out when the post-war economic development of western Europe is compared with pre-war experience. First, the period has been one of rapid growth. Second, on no occasion during this period has unemployment reached the average levels of the inter-war years, and this applies even to those few countries under review where structural under-employment still persists. Whereas during the twenties and thirties a shortfall of demand of 20-30 per cent below full-capacity production was only too frequent, most countries have in post-war years been balancing on a narrow margin between over-full employment and a shortfall of demand equivalent to just a few per cent of gross national product. Third, the post-war period has been one of persistently rising national price levels. World scarcity of basic commodities and rising import prices, pent-up demand and inherited excess liquidity, the devaluations of 1949 and, later, the Korean War, made price stability virtually an unattainable target for a number of years. Only gradually have conditions in most countries changed in a way which leaves scope for a successful fight against price inflation.

In this situation the task of counter-cyclical policy has been different from, and in a way much simpler than, what was envisaged when the idea of 'compensatory finance' first developed during the thirties. The question whether governments are now able to offset quickly and effectively spontaneous tendencies towards large-scale unemployment remains unanswerable for lack of evidence: the practically relevant question in post-war conditions so far has rather been whether instruments are available which are sufficient for quick marginal adjustments of total demand. On the other hand, the task of counter-cyclical policy has become more difficult. Wanting to move on the very margin of full employment, as some countries do, while still avoiding inflationary pressures, is to put the ideal extremely high. Its attainment requires a perfection of policy-making which is difficult to achieve, and which calls for highly delicate and flexible instruments. An analysis of policy targets makes this abundantly clear.

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[7] The following rather provocative statement illustrates this point: " If an economist reaches the conclusion that the targets of full employment and price stability are ' conflicting targets ', this is always conditional upon the assumptions he makes concerning the instruments to be used and his present knowledge about the economy. What is impossible with the instruments considered admissible in a reactionary-liberal society may very well be possible with the instruments of a social-liberal society; what is not possible in a social-liberal society may be so in a socialistic society. What is considered ' impossible ' today may be mere routine tomorrow." (Bent Hansen, *op. cit.* p. 43).

The declared aims of economic policy in the 1950s in most countries have been high and stable employment, a high rate of growth, and price stability — not necessarily in this order. To this list has been added quite frequently " an equitable distribution of incomes " — by which is meant, in most cases, that the share of wages in national income should be kept high — and, almost universally, the qualification that these targets should not be pursued to the point where the foreign balance is endangered. The latter limitation is important; in fact, in many countries maintenance or an improvement of the foreign balance has been given the status of a separate target, though views on what constitutes a satisfactory external liquidity position have varied widely.[8] In addition to these general considerations, common to all countries, more special preoccupations have been, in France, the need for releasing resources to deal with the situation in Algeria, and, in the United Kingdom, the vulnerability of the British balance of payments on capital account.[9]

However, although the list of basic targets has been almost identical in each country the precise interpretations of them, and the relative weights given to each, have varied considerably. Price stability, for instance, has been interpreted more literally in western Germany and in Switzerland than in most other countries, which had to be reluctantly satisfied if national cost levels could at least be kept in line with those of competing countries. The unemployment ratio compatible with full employment has been put in the Netherlands at 2.5 to 4 per cent of the dependent working population [10] but at less than 2 per cent in Norway [11] and Sweden, whereas much higher unemployment ratios than these have been tolerated in Belgium and Denmark, and Italy does not yet aim at a degree of unemployment as low as can be the objective in other countries.[12] In interpreting the foreign-balance target — or sub-target — the United Kingdom, Switzerland, and possibly other countries, appear to have aimed at considerable current surpluses, whereas France and Norway, at the other extreme, have deliberately been running current deficits to the extent that these could be covered by foreign borrowing.

Differences of priorities have been demonstrated even more clearly in situations where countries have had to give up some targets in order to attain others. As a generalization, it might be said that the United Kingdom has given first priority to safeguarding the balance of payments, though the means for this have been changing. Denmark has been inclined to check growth and give up full employment in order to avoid foreign borrowing. The attitude of Belgium has been to slow down economic expansion and to sacrifice full employment in the short run, so as to maintain price stability. In western Germany, though this choice has so far never seriously arisen, there are also indications that price stability would be given the higher priority.[13] Norway and Sweden have pursued full employment to the point where price stability has been very difficult to achieve. France, to conclude the generalization, has given priority to expansion and to the demands of the Algerian problem.

Some of these differences in attitude are at least partially explainable in terms of the differing structural characteristics of the economies in question. Examples are the traditional role of London as a financial centre; the varying degree and nature of dependence on foreign trade — and thus of vulnerability to outside disturbances; what is considered to be the particular sensitivity of the western German population to signs of price inflation; the strength of trade unions and the mechanism of wage settlements in the United Kingdom. But most differences of attitude simply reflect political and other preferences of governments.

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[8] See *Economic Survey of Europe in 1958*, Chapter III, section 1.

[9] It might be questioned whether the avoidance of direct controls should not also be added to this list, since this has been a major objective of a number of countries. However, in the present setting this is more appropriately treated as a restriction on the range of instruments considered admissible.

[10] The Netherlands is one of the few countries where an attempt has been made to analyse in quantitative terms the meaning of the full-employment standard. Under present Dutch conditions, and assuming a tolerable average duration of frictional unemployment of one month, the " normal " number of unemployed is estimated at 100,000 (or 3.4 per cent of the dependent working population) of which 60,000 would be frictional unemployment, 25,000 seasonal unemployment and 15,000 " unemployables ". Allowing for a margin of 20,000 in both directions this defines unemployment consistent with the full employment standard at 2.7-4.1 per cent of the dependent working population. If the tolerable average duration of frictional unemployment were reduced to half a month these percentages would have to be put some 0.8 percentage points lower (see *Een verkenning der economische toekomstmogelijkheden van Nederland, 1950-1970*, Central Planning Bureau, 1955, Appendix C).

[11] In the case of Norway this may be deduced from events in 1958, when an average of monthly unemployment figures of 25,000 (2.5 per cent of the number of wage- and salary-earners or slightly more than 1.5 per cent of total labour force) was generally considered to justify special measures to bring unemployment down.

[12] However, the limited comparability of national unemployment data must be borne in mind.

[13] This is suggested by *inter alia* the following statement by the President of the Bundesbank: " We have shown that we are determined to maintain the purchasing power of the DM. We shall not allow ourselves to be detracted from this, should employers and wage-earners lack in self-discipline and self-control. The consequences would, however, be ungratifying . . . They would involve a setback in the *Konjunktur* with all its consequences on production, employment and government budgets . . . I hope that this will be understood and that we shall not be forced to bring out heavier guns from our arsenal." *Monatsberichte der Deutsches Bundesbank*, October 1959, p. 9.

A third factor which has sometimes called forth material differences in policy approach is uncertainty as to which instruments will best serve to achieve the ultimate targets. Obviously, immediate problems should not be solved in a way which will create even bigger problems later; and there is a possibility of conflicts between short-run and long-term targets. Such a conflict has recently been apparent in the United States, where fear of adding to the long-term problem of monetary management by increasing the short-term public debt caused budgetary instruments for stimulation to be used only reluctantly during the last recession.

The conflict between short-term and long-term considerations seems to be most serious with respect to the target of economic expansion; and indeed too little is known about the long-run conditions most favourable to economic growth. A commonly held view is that the rate of expansion is related in a fairly simple way to the rate of capital accumulation. It is also widely argued, and probably rightly, that under-employment of available labour and capacity, since it means lost opportunities, is harmful to expansion and should be avoided. This line of reasoning gives high priority to the full-employment target and to high investment as prerequisites of rapid and steady expansion, whereas the price-stability target is accorded a lesser priority.

However, contrary views have been voiced. It has been argued that price stability which will ensure competitiveness on the world market is the first pre-condition for growth in a small country heavily dependent on external trade, and so must be pursued even in the short run — at the cost of investment. There are even proponents of the view that short-lived recessions are unavoidable, and even helpful to growth in that they do away with 'exaggerations' and so lay a sounder basis for expansion. Such a view obviously considerably reduces the priority of the full-employment target.

On closer consideration, therefore, many apparent differences of opinion about the appropriate targets of budgetary and other economic policy originate in differences of view on how a modern market economy operates.

Economic Ideas behind the Budgetary Policies of the 1950s

The Netherlands is the only country in western Europe where these ideas have been expressed in the form of an explicit economic model. The Dutch model contains 27 equations, and explains changes in 27 endogenous variables (among them the chief components of gross national product and their prices) in terms of changes in 26 exogenous variables and a certain number of constants characterizing the economy — such as marginal propensities to consume, averages of marginal tax rates, etc.[14] Taken as a whole, therefore, the model gives a comprehensive picture of the analytical background of national economic policy in the Netherlands.

The exogenous variables include what are considered, in the Netherlands, to be the chief instruments of economic policy. Most of them, in the version of the model discussed here, are budgetary instruments: the volume of general-government employment, the quantity of government commodity purchases, government transfer payments, direct taxes collected from wage income and profit income respectively, and indirect taxes on different commodity groups. It is worth noting that the instruments include — as they should — changes in commodity purchases in terms of quantities rather than money values, and autonomous changes in tax tariffs rather than actual changes in tax receipts. Total outlays and total tax receipts — and hence the budget balance — are only in part determined by autonomous budgetary measures taken; they also reflect " budget automatism " in that they depend on the way in which commodity prices, incomes and other (endogenous) variables of relevance for the budget react both to policy measures and to disturbances from outside. That is to say, they depend in part on the model itself and must therefore be treated as endogenous variables.[15]

Other features of official Dutch reasoning may be brought out by examining the equations of the model.

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[14] The description in the text relates to the 1955 version of the model as presented in *Central Economic Plan, 1955*, Central Planning Bureau. See also H. Theil, *Economic Forecasts and Policy*, Amsterdam 1958, pp. 51-56 and 90-93. It should be noted, however, that the Dutch model has been subject to gradual changes in the light of experience and of new information becoming available (see P. J. Verdoorn and C. van Eyk, *Experimental Short-Term Forecasting Models*, paper presented at the meeting of the Econometric Society in Bilbao, 1958).

[15] It follows that it is more difficult than is sometimes assumed to assess from *ex-post* statistics of government receipts and expenditure what the real effects of budgetary measures have been. Such attempts will involve two steps: (i) separating those changes in tax receipts, government expenditure, etc. which are the result of autonomous government actions from changes which merely reflect " budget automatism ", and (ii) assessing the impact of the former on relevant endogenous variables. Step one is not difficult, in most cases, although it may not always be easy to decide whether volumes or values should be considered the autonomously determined variables; but step two presupposes the existence of a model in order to follow the repercussions of autonomous tax changes etc. throughout the economy. One of the rare instances of an analysis along these lines, relating to Swedish policy during 1955 to 1959, is provided by *Konjunkturläget Hösten 1959*, Konjunkturinstitutet, Stockholm, pp. 92-100, based on a theoretical model set out by Bent Hansen in " Statsbudgetens verkningar ", *Ekonomisk Tidsskrift*, 1959.

Of the 27 equations (all of which are in terms of changes from one year to the next), 12 are definitions; 4 are institutional and serve to explain tax receipts and unemployment benefits, and 11 are behaviouristic. The latter are of particular interest in throwing light on the ideas held about the working of the Dutch economy. They are:

(a) Two consumption functions relating consumption to disposable incomes (marginal propensities to consume are assumed to be 0.85 and 0.40 for wage-earners and entrepreneurs respectively);

(b) one investment function showing investment to depend — apart from an autonomous component — on the volume of sales and the capital stock;

(c) one equation showing employment as a simple function of home production;

(d) one showing imports to depend on the components of the sales of enterprises (with different marginal import ratios for sales for consumption, for investment, etc.);

(e) one showing exports to depend (apart from an autonomous component) on the competitiveness of home production, as described by the ratio of the national price level to the competitive world price level;

(f) five equations explaining prices in terms of autonomous changes in the level of import prices, in net indirect taxes and in the wage rate (which is considered as an exogenous variable subject to a considerable amount of government control).

The constants entering into the import equation reflect the extreme dependence of the Dutch economy on foreign trade. The marginal import coefficients are as high as 0.38 for consumption, 0.79 for investment in stocks, 0.71 for other investment, 0.63 for commodity exports and 0.28 for exports of services. Exports are assumed to be price sensitive, the elasticity of export with respect to relative home and world market prices being put at −2.

One of the advantages of having available a model of this kind is that it allows quick assessments, in quantitative terms, of the probable impacts of any policy measure, actual or contemplated. By ‘ solving the model ’ (i.e. expressing the endogenous variables in terms of the exogenous ones) it is possible to compute the combined direct and secondary effects of measures taken (or of outside disturbances) on any of the endogenous variables.[16]

No model is, of course, better than the economic rationale behind it.

The accuracy of the calculated result will depend, therefore, on how successfully the working of the economy is described by the model, and will have to be tested by common sense. Some results of such calculations taken from a recent Dutch publication are reproduced in Table 1. Depending as they do on the particular characteristics of the Dutch economy, they cannot be assumed to apply equally to other countries with different economic structures; nevertheless, they are of interest as a rare example of an attempt to quantify the effects to be expected from alternative budgetary and other measures.[17] All figures in the table are shown at annual rates, and in each case a distinction is drawn between first-year and second-year effects which, because of lags, are often different.

It emerges from the data in the table that budgetary measures with largely identical impacts on the budget balance (which, it should be noted, is not itself considered a target) may have very different effects in other respects. If, in a situation of unemployment, for instance, it is decided to increase government expenditure on goods and services by 100 million guilders (line 1) this may be counted upon, under Dutch conditions, to create 3,500 new jobs (in the first year) at a cost to the budget balance, when secondary effects are accounted for, of 70 million guilders. Similarly, a 100 million guilder cut in direct taxes on wage income (line 2) would create 2,200 jobs while reducing the budget balance by 65 million guilders, and an equivalent cut in indirect taxes on consumers’ goods (line 4) would create 4,400 jobs at the slightly higher budget cost of 75 million guilders. However, an equivalent reduction of direct taxes on non-wage income (line 3), would have a first-year employment effect of no more than 300 jobs at a higher net cost to the budget than any of the other alternatives.

The lesson, which is applicable to all countries even though the precise figures above may not apply, is that it is by no means unimportant, when countercyclical budgetary measures are to be taken, whether the income side or the expenditure side of the budget will be affected and, if the former, how the tax changes are accomplished. The budget balance alone, or changes in it, may be a treacherous guide to the effects of fiscal policy.

A noteworthy characteristic of the 1955 Dutch model is that it provides no explicit room for monetary

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[16] However, the existence of the model does not deprive the policy-maker of the need to forecast the value of exogenous variables outside his control. On this problem — which is perhaps the most difficult one in a policy for short-term stability and has frequently been the source of policy errors, particularly in timing — the model offers no help.

[17] Attempts to reach conclusions concerning the quantitative impact of alternative government actions are, of course, known also in other countries; in fact, a great part of econometric research in Europe today aims precisely at this. However, the estimates available so far in most countries are based on rather crude models (see, for instance, *Wie wirkt die Ausgabe einer zusätzlichen Milliarde Schilling*, Österreichisches Institut für Wirtschaftsforschung, 9. Sonderheft, Vienna 1956).

TABLE 1

Effects of policy measures on central-government budget surplus, balance-of-payments surplus, consumers' prices, investment, and employment in the Netherlands [a]

G = Government budget surplus (= net change in government financial assets).
B = Balance-of-payments surplus (current account). P = Price level of consumers' goods.
I = Investment in private fixed assets (volume figures). E = Employment.

Measure taken		Effect on				
		G	B	P	I	E
		Million guilders	Million guilders	Percentage	Million guilders	Persons
100 million guilder increase in government expenditure on goods and services	1st year	−70	−80	0	+10	+3 500
	2nd year	−70	−60	0	+20	+3 900
100 million guilder reduction in direct taxes on wage income	1st year	−65	−70	+0.2	+10	+2 200
	2nd year	−65	−50	+0.2	+20	+3 700
100 million guilder reduction in direct taxes on non-wage income	1st year	−100	−10	0	0	+300
	2nd year	−85	−40	+0.1	+30	+2 300
100 million guilder reduction in indirect taxes on consumers' goods	1st year	−75	−30	+0.5	+10	+4 400
	2nd year	−65	−50	−0.5	+20	+6 000
1 per cent general wage increase (175 million guilders)	1st year	−15	−100	+0.4	−10	+100
	2nd year	−35	−60	+0.4	−20	−1 000
100 million guilder increase in private construction activity	1st year	+30	−80	0	+110	+3 500
	2nd year	+30	−60	0	+120	+3 900

Source: Sociaal-Economische Raad, *Advies over het in 1959 en 1950 te voeren sociaal-economische beleid*, The Hague 1959.

[a] Computed on the basis of the Dutch model.

variables. Neither in the consumption functions nor in the investment function has it been assumed that the liquidity situation of the private sector, the rate of interest, or the availability of credit have roles to play. This seems to imply either that the constructors of the 1955 model considered the impacts of monetary measures too unpredictable to be explicitly identifiable in the model or, alternatively, so unimportant as to justify their neglect.[18]

In no country other than the Netherlands has an explicit economic model been constructed to serve policy-making purposes. This does not mean that official understanding of the economic mechanism in, at least some, other countries is any less than in the Netherlands, or that the probable consequences of alternative economic policies — or of the choice of measures used to implement them — are any less carefully considered. However, the fact that the working of the economic mechanism is not expressed in precise quantitative terms may, at times, tend to blur the assessment of the tendencies in the economy and of the probable impact of government policies, even for the officials and ministers primarily concerned; and it is certainly conducive to less clear exposition of government policies to parliaments and public.

The publication of national budgets — as in Norway and Sweden and, in the early post-war years, in Denmark and the United Kingdom — can, however, yield most, if not all, of the major benefits of the Dutch practice. The very process of setting up a national budget implies assessment of the probable impact of government actions in quantitative terms and ensures that all interrelationships known to exist among relevant economic variables are taken into account to the extent that they can be quantified. Some of the countries mentioned are known to use in their official policy-making procedures a variety of analytical tools such as input-output tables, empirically derived consumption functions, estimates of import elasticities, evidence on the behaviour of wages, etc.

However, the fact that explicit economic models are not used outside the Netherlands makes it more difficult to ascertain what the economic reasoning in other countries has been. From official policy statements and the measures adopted it may be deduced that the basic approach in the fifties has been, almost everywhere, that of a demand-supply analysis, with full employment levels of output taken as more or less given in the short-run and the components of total demand assumed to be subject to short-term fluctuations determined by outside disturbances and government action. This analytical structure is usually combined with some theory of the determinants of growth; and in most cases it has been assumed that the rate of growth depends largely on the amount of investment. Furthermore, for an analysis of the impact of government measures on wages, prices, imports, etc., to be possible within this analytical framework, assumptions have to be made about the relationships of these variables to total demand.[19] With these additions, the demand/supply analysis is a flexible tool lending itself to considerable refinements and a variety of approaches.

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[18] In fact, a monetary variable has been introduced into the version of the model that is used by the Central Planning Bureau at present, and is made to play a minor role in the investment equation. But, apart from this, the monetary implications of a forecast are as a rule made the subject of separate studies which may lead to revisions of the estimates derived from the model. The impact of monetary factors is, in effect, deduced on the basis of common-sense considerations.

In fact as soon as an attempt is made to refine the total supply/total demand approach, important inter-country differences in assessment of the relationships mentioned above become apparent. Such differences, reflecting especially the long-standing conflict between classical and Keynesian — or post-Keynesian — thinking, provide a considerable part of the explanation of observed differences in the use of budgetary and other instruments of policy.

Thus, the passive role attributed to budgetary policy in classical economics — a basic axiom of which was that budget deficits financed by " new money " necessarily would be inflationary — has influenced the attitudes of many governments and partly explains past tendencies — in Belgium, Switzerland and western Germany for example — to leave the control of short-term economic developments largely to the monetary instruments of the Central Bank. In other countries attitudes have been more influenced by Keynesian economics. There has been a general recognition that budgetary policy — alone or together with monetary policy — has an important role to play in keeping total demand at the right level and in influencing the distribution of national product between consumption and investment. However, as emerges from the analysis in section 2 of country practices, the role assigned to budgetary and monetary instruments respectively has varied greatly even among countries where the potentialities of both have been largely recognized — again partly because of differences in economic reasoning. Norway, France and perhaps Austria — like the Netherlands — have shown more confidence in budgetary than in monetary measures as regulators of total demand, whereas Denmark and the United Kingdom have tended to rely more on monetary measures for the same purpose.

The Flexibility of Budgetary Instruments

The question then arises, whether budgetary instruments, as defined above, can be varied rapidly enough and in such a way as to make them effective tools for stabilization policies. In theoretical discussions of compensatory finance such flexibility has often been taken more or less for granted. Governments and parliaments, faced as they are with complaints about heavy taxation on the one hand and demands for higher expenditure on the other, are more likely to feel that their freedom of manœuvre is rather limited. It has, in fact, been shown — in section 3 of Chapter V — that in many countries institutional factors are at present such as seriously to hamper a flexible use of budgetary instruments.

Chart I shows, for selected countries, the actual developments during the fifties of the major categories of central-government receipts and expenditure, together with the central government's savings surplus or deficiency, which sums up the net effect of changes in individual budgetary components.[20] To improve inter-country comparability of the data, and also to eliminate the effects of price changes, all are expressed as percentages of gross national product.

A number of reservations must be borne in mind when interpreting the chart. Actual budget receipts, as was noted above,[21] are always the combined result of budgetary measures, outside disturbances and budget automatism. For this reason the series shown in the chart can serve only as a very indirect indication of autonomous changes in budgetary policy. Furthermore, since the chart only reflects what actually happened in various policy phases, it in no way indicates what could have been accomplished in terms of varying budget items had larger variations been called for. There is even reason to believe that the calendar year data presented in the chart tend to make the course of government receipts and expenditure appear smoother than it has actually been, since budgetary changes introduced during the year are inevitably blurred by this presentation. Finally, there are certain budgetary measures such as changes in rules regarding investment allowances or in the rates of graded purchase tax which, although very powerful in their effects on the private sector, will hardly be reflected in budget data. For these reasons closed account data are likely to give an unreliable picture of the flexibility of budgetary instruments; and the chart should, therefore, be studied against the background of individual countries' experiences described in section 2.

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[19] One view, until recently widely accepted, was that so long as aggregate demand was kept within the limits of available supplies, the result would be reasonably satisfactory. From the policy experiences of the last few years, however, it has emerged that reality is not so simple as this. There is a growing awareness that the interrelationships between total demand, wages, prices and the foreign balance are, in fact, exceedingly complex.

[20] Central- rather than general-government data have been used since, as was noted in section 3 of Chapter V, treasury control over local-government operations is too weak in most countries to make the latter an instrument of national economic policy.

[21] See footnote 15.

On this basis, the countries which have relied most on budgetary measures — the Netherlands, Norway, Sweden and France — have demonstrated that short-term changes in the central-government savings surplus or deficiency (reflecting changes in government receipts and expenditure items) of 1-3 per cent of gross national product are entirely within reach and, as has been pointed out above, this would appear to be sufficient to counteract such fluctuations in aggregate demand of other sectors as have actually occurred during the period under consideration — rarely exceeding 2-3 per cent of gross national product in a year.

However, the data in the chart also show that the annual variations of different classes of receipts and expenditure have differed considerably. For the present purpose, three broad categories of budgetary instruments may conveniently be distinguished: public expenditure on goods and services; taxes, subsidies and government current transfers affecting mainly private disposable incomes; and capital transfers and state lendings aiming at influencing the investment activity of local authorities and the private sector.

Within the former category, government civil consumption is the largest component, and also the one which lends itself the least to counter-cyclical manipulation. It has, in fact, varied only slightly in all countries, and such variations as did occur were mostly unrelated to overall economic policy considerations and sometimes even pro-cyclical. This is not surprising if it is remembered that, as was shown in section 2 of Chapter V, public civil consumption consists largely of expenditures for administration, education, health, police, etc., which obviously cannot be made subject to short-term variation. Defence expenditure (not shown in the chart) is also large, and has in most countries shown considerable fluctuations; but in the main these naturally do not reflect considerations of counter-cyclical policy.

The scope for such a policy towards capital formation is somewhat larger. It is certainly true that, as with government consumption, the overall level of public investment has to be decided largely in the light of needs determined by social and other, partly non-economic, considerations. But if the level, even over a relatively short period, is largely given, there still remains a considerable scope for flexibility in timing — investment projects may, within limits, be speeded up or slowed down as the general economic situation requires. The main obstacle is, of course, that investment projects take time to get started and, once under way, cannot be called off without serious inconvenience and loss. This, as was brought out in section 4 of Chapter V, applies in particular to investment of public enterprises (not shown in the chart); and the high hopes held in some countries in the early post-war years of using public-enterprise investment as a regulator of demand have hardly been fulfilled. General-government investments, in which the construction of roads and other transport facilities weighs heavily, may be somewhat more readily variable; and, as the chart indicates, relatively large counter-cyclical variations in such investments have been achieved in Austria, the Netherlands, Norway and Sweden. However, since the absolute size of this component is usually less than 1 per cent of gross national product, its importance is bound to remain rather secondary.

It is the second category of instruments (direct and indirect taxes, subsidies, and other current transfers) which therefore have to carry — with the third, described below — most of the burden of any counter-cyclical budgetary policy. A glance at the chart shows that there have been large variations in each of these components of government receipts and outlays. However, the chart does not clearly reveal the extent to which these instruments were in fact used by countries as short-term regulators of private demand. The main elements blurring the picture are budget automatism resulting from fluctuations in activity and rising money incomes, lags between taxation changes (rates and assessments) and consequent changes in tax receipts, and autonomous changes in taxation structure which quite often affect two or more of the components simultaneously.

However, drawing on the information in section 2 below, and to some extent also on section 3 of Chapter V, a definite pattern emerges. By and large, western European governments have tended to work more through indirect taxes and subsidies than through direct taxes, presumably partly because changes in the former have quicker effects but also because there may be somewhat greater institutional scope for changing indirect taxes and subsidies in the course of the fiscal year. Furthermore — and rather irrationally — increases in indirect taxes seem to provoke less political resistance than the raising of direct taxation. Changes — in both directions — of indirect taxes and subsidies have been undertaken at some stage for purposes of overall economic policy by virtually all countries; and they have been particularly effectively used for this purpose by France, the Netherlands, Norway and Sweden.[22] Changes in direct taxes have been fewer and mostly downwards since in most countries such taxes have consistently been considered so high as to leave no room for further increases. In fact, the combination of a progressive taxation system and gradually inflated incomes makes it necessary from time to time to adjust tax rates downwards to prevent the real burden of taxation from rising. Much can be achieved towards making direct taxation a counter-cyclical instrument, therefore, by a careful timing of these downward adjustments which it is intended to make soon in any case. However, the fact that tax rates have been raised — for instance in France, in the Netherlands and in Norway — suggests that what is considered virtually impossible in some countries constitutes an integral part of policy implementation in others.

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[22] The case of the United Kingdom is less clear. Here, the main reliance has been on changes in the graded purchase tax which falls heavily on consumers' durable goods. There is no doubt that such changes have a quick and strong, although short-lived, effect on the demand for a particular commodity. It is an open question, nevertheless, whether this will also be reflected in overall demand or whether it simply means shifting consumers' demand between groups of commodities. Even so, a graded purchase tax, such as is available in the United Kingdom, is a powerful instrument for achieving selective stimulation or restraints.

The third and last category of instruments to be considered are those designed to influence private and local-authority investments — capital transfers, state lending, and rules affecting the base of taxation such as initial and capital allowances.[23] They have one common characteristic : in contrast with monetary instruments which work through the interest rate and the general availability of credit, they can be made to aim directly at selected forms of investment.[23a] On the other hand, their weakness is the same as that of government investment and investment of public enterprises, only more pronounced — that the lag between any measures taken and the effects of these measures may be long and unpredictable. For this reason accurate timing may be difficult to achieve.

Since capital grants and state lending to private enterprises are used by them in combination with finance from other sources, a given amount of money used for this purpose — or a loss of tax receipts resulting from a change in depreciation rules — is likely to get more investment started than would the same amount of money spent directly on public investment. These instruments, therefore, are very powerful; and they have been used, together with monetary instruments, in most of the countries under review (see Chart 1).

For instance, " investment " and " capital " allowances have been resorted to in the Netherlands and the United Kingdom both for speeding up and for slowing down investment. More commonly, governments have used grants or loans on favourable terms for the promotion of certain types of high priority investment. In Norway, these loans have been channelled through a number of state banks set up for this purpose. They receive the bulk of their funds from the treasury, and are subject to lending ceilings fixed annually in the national budget; and they have accounted, in recent years, for 40-50 per cent of net credits made available to the private and local sector. In Belgium, public credit institutions finance some 15-20 per cent of private sector investments; and one half of the dwellings built in 1957 benefited from official assistance. In Austria, central-government grants and loans *(Investitionsförderung)* financed 7.5 per cent of total gross fixed investment in 1958; and the corresponding contribution of general government in 1957 was 11.4 per cent. In western Germany, central-government financing — including loans and grants to local authorities — amounted to 15.5 per cent of total gross fixed investment. In France, public funds in 1957 financed 22 per cent, and specialized financial institutions about 10 per cent of total investment, including the investment of local authorities and public enterprises; one-quarter of this finance went to the construction of dwellings.

The Public Sector as an Automatic Stabilizer

While the size of the public sector implies that its operation — if ill-conceived — may be a major cause of economic fluctuations, its relative growth has at the same time tended to make the economy more resistant to disturbances which have their roots in fluctuations of private demand, domestic or external.

Since the level of general-government and public-enterprise demand is, on the whole, not subject to cyclical fluctuations, the very growth in size of the public sector means increased stability. The labour force of this sector — varying in those few countries for which data are available between 11 per cent and 25 per cent of the active labour force[24] (which may correspond to 15-40 per cent of the total number of wage- and salary-earners) — is itself virtually immune to the risk of cyclical unemployment. Public-sector expenditure on goods and services — to repeat these key figures — now varies in the industrialized western European countries between 15 and 25 per cent of the gross national product; and within gross capital formation alone the share sometimes runs as high as 40 per cent or more. Thus, a core of expenditure on goods and services is provided which, even if not deliberately manipulated to offset fluctuations in private demand, by its inherent stability sets a floor to any downward movement and considerably limits the scope for overall fluctuations.[24a]

Equally important is the tendency for the government sector to act as a ' built-in stabilizer ' in the sense

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[23] The reason for including initial and capital allowances in this group is that the loss of tax receipts resulting from them may, for all practical purposes, be considered a capital grant.

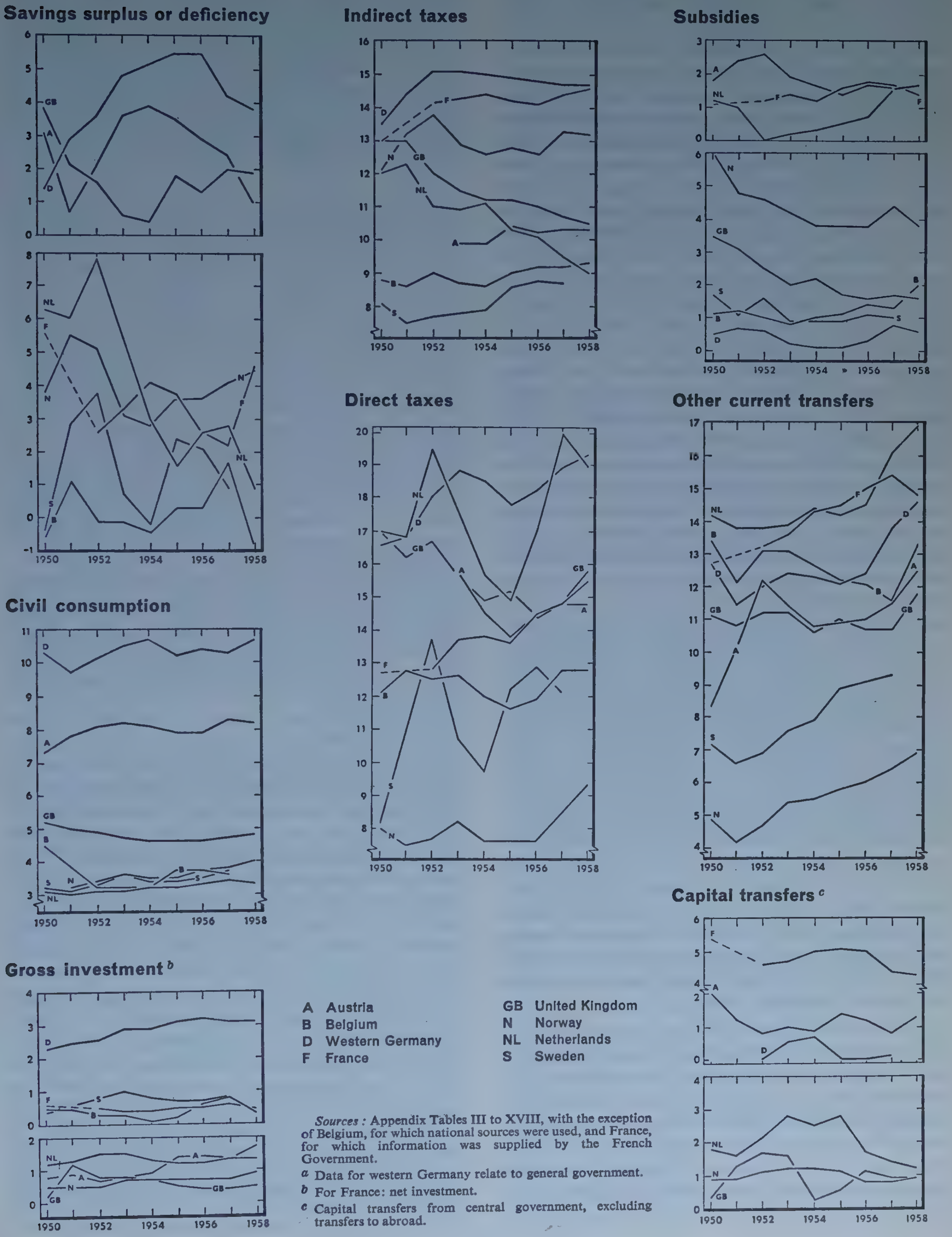
[23a] Credit rationing can, of course, be made moderately selective, for example by means of requests to banks — used at times in a number of countries — to look with particular disfavour on certain classes of borrowers.

[24] See Table 1 of Chapter V.

[24a] Compare the role played by autonomous expenditure in determining the lower turning point of the cycle in recent business cycle theories. See, for instance, J. R. Hicks, *A Contribution to the Theory of the Trade Cycle*, Oxford, 1950.

CHART 1

Shares of central-government receipts and expenditure in gross national product[a]



Savings surplus or deficiency

Civil consumption

Gross investment[b]

Indirect taxes

Direct taxes

Subsidies

Other current transfers

Capital transfers[c]

A	Austria	GB	United Kingdom
B	Belgium	N	Norway
D	Western Germany	NL	Netherlands
F	France	S	Sweden

Sources : Appendix Tables III to XVIII, with the exception of Belgium, for which national sources were used, and France, for which information was supplied by the French Government.

[a] Data for western Germany relate to general government.

[b] For France: net investment.

[c] Capital transfers from central government, excluding transfers to abroad.

that compensating forces are automatically released once the economy starts to deviate one way or another from its smooth path of growth. Any fluctuations in private incomes — and hence the fluctuations in demand associated with them — are smoothed by the tendency for tax payments due from these incomes to change in the same direction and, often, more than in proportion to the changes in income; and government transfer payments tend to move contrary to the general income trend. This stabilizing effect varies considerably, of course, for different components of government revenue and expenditure, depending partly on their relative size and partly on the speed and strength with which they respond to changes in the activity level. The most important built-in stabilizers are, on the expenditure side, unemployment compensation and relief payments and schemes for the support of farmers' incomes in some countries. On the revenue side, income and profit taxes may be counted on to provide a stabilizing effect wherever, as in most countries, the progressiveness of tax rates and definitions of the tax base tend to make tax receipts fluctuate more widely than incomes. Commodity taxes levied on luxury goods with income-sensitive demand will have a similar automatically compensating tendency. On the other hand, there are taxes, such as real estate and property taxes, where the amount collected is largely unrelated to current incomes; and such taxes tend to add to the instability of private demand or, at best, to be neutral in their effects.

The above conclusions have to be modified, of course, to the extent that institutional arrangements in a country cause unexpected changes in tax receipts to be automatically reflected in increased or decreased government expenditure. As was shown in section 3 of Chapter V, some upward adjustments of central-government expenditures to revenues seem to be virtually unavoidable in some countries; and among local authorities the practice of adjusting expenditures to revenue — maybe with some lag — is probably the rule rather than the exception. The conclusions have to be further modified to the extent that lags exist between income accruals and tax collection; and in extreme cases, when taxes levied on peak-year incomes happen to be collected when incomes are falling off, the existence of lags may render taxation the very opposite of a stabilizing factor.

Thus even if inter-country differences in the structure of government revenue and expenditure are left out of account, the role of the public sector as an automatic stabilizer may be assumed to vary considerably between countries. For the United States it was estimated in the early fifties that as a result of the combined stabilizing effects of federal and local government activities, the decline in gross national product in a recession would be mitigated to the extent of 30-40 per cent — that is to say that the actual decline would be 30-40 per cent less than if tax receipts and public expenditure were to move exactly in proportion with total gross national product.[25] Bearing in mind the considerable differences that there are in revenue and expenditure structures, these figures can at best only be a rough guide to the order of magnitude of the probable built-in stability effect of public-sector operations in western Europe in the contrasting situation of rising private income and demand.

Built-in stabilizers, as they exist at present, are by-products of arrangements in the public sector that have been instituted for reasons entirely unconnected with counter-cyclical policy. It may be asked whether they might be developed further, perhaps up to a point where the introduction of automatic-stabilizer characteristics into standing policy arrangements would make policy flexibility for the purpose of controlling short-term economic developments virtually superfluous.[25a] The idea has its appeal — to some because of their aversion to discretionary policy measures and to others because of its intellectual challenge — but the hope for making it a reality is not very great. Built-in stabilizers can, at best, reduce the amplitude of downswings or upswings once started; but they cannot prevent such fluctuations from being set off by uncontrolled forces somewhere in the economy. To design a formula that would guarantee, once and for all, the smooth course of economic development would call for a degree of foresight, and also an understanding of the working of the economy, exceeding by far what is required for the reasonable success of an adaptable policy.

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[25] This is in contrast to conditions as they prevailed at the beginning of the depression of the thirties, when government budgets, according to the same source, aggravated the downturn by 10-20 per cent. The stabilizing effect of the public sector in the fifties, to which taxes and transfer payments contributed about equal amounts, was due entirely to the federal government, since state and local governments were on balance slightly destabilizing in their operations. See, "The Stabilizing Effectiveness of Budget Flexibility" by David W. Lusher with comments by Samuel M. Cohn, Benjamin Caplan, Gerhard Colm, A. G. Hart, Melvin I. White, C. Harry Kahn, Daniel M. Holland and Charles L. Schultze in *Policies to Combat Depression*, National Bureau of Economic Research, Princeton 1956. See also Richard A. Musgrave, *loc. cit.* p. 511.

[25a] One additional measure of this kind was considered, though never introduced, in the United Kingdom. "The ideal to be aimed at is some corrective influence which would come into play automatically — on the analogy of a thermostatic control — in accordance with rules determined in advance and well understood by the public." (White Paper on *Employment Policy* (Cmd. 6527) London 1944, p. 22 *et seq.*). The device suggested was a scheme for varying, in sympathy with the state of employment, the weekly contributions to be paid by employers and employees under a system of social insurance. The rate of contribution actually levied would exceed the standard rate at times when unemployment fell below the estimated average level and *vice versa*.

2. COUNTRY ILLUSTRATIONS

The preceding discussion of budgetary policies has been formulated largely in theoretical and general terms, though with occasional references to differences among countries concerning both the targets of policy and views on the way in which the economy works. The illustrations in this section, drawn from the experiences of seven countries [26] during the period 1950 to 1958, all serve to substantiate one or more of the points made in section 1.

Almost all western European countries have passed through four major phases in the period under consideration: the Korean boom of 1950-1951, the post-Korean recession of 1952-1953, the 1955-1956 boom and the 1958 stagnation or recession. Whereas the cyclical pattern was thus almost the same everywhere, differences in economic structure accounted for considerable differences in the basic problems confronting individual countries. First, the physical scope for expansion at any time, and in particular the supply of manpower, varied from country to country and, secondly, the possibilities of pursuing autonomous domestic policies varied with each country's international liquidity position and the susceptibility of its economy to external factors.[27]

Thus, for example, Norway and Belgium are countries whose economies are particularly sensitive to any weakening of foreign demand. The Netherlands is even more dependent on foreign trade, but was characterized in the period under consideration by a generally strong balance-of-payments position (which was a serious cause of concern only in 1957) and by an ample labour supply. In the United Kingdom room for manœuvre was limited by low international liquidity and a low elasticity of domestic supply as well as by the large claims of defence on resources. France maintained a rapid rate of expansion longer than most other countries, though this was accompanied by strong inflationary pressures and by repeated foreign exchange crises relieved by recourse to foreign borrowing; and its difficulties were aggravated by fluctuations in agricultural output and, as in the United Kingdom, by high defence expenditure. In western Germany, on the other hand, a large labour supply and the concomitant relatively slow wage increases rendered possible a rapid expansion with only moderate inflationary tendencies; and continually rising foreign exchange reserves reflected not only the competitiveness of west German exports but external factors also. Austria, although to a much lesser extent, was in a similar favourable position.

Apart from the differences in basic structural problems, widely different approaches were manifested in the formulation of policies designed to affect rates or patterns of economic expansion in the short term. These were naturally related to the priorities of each government's economic objectives. However, they also depended partly on the degree of refinement and accuracy with which each government identified the root of a disturbance to the smooth functioning of its economy and assessed the short-term economic prospects and the effects of possible regulating measures. Differences of choice among monetary, budgetary and other policy instruments, and among individual budgetary measures, were also determined by the suitability of the institutional framework in each country for appropriate and rapid policy changes, and by views or prejudices regarding the possibilities of varying particular items of budget revenue or expenditure.

As has been pointed out in section 1, evaluation in quantitative terms of the effects of budgetary measures on other sectors of the economy can be attempted only for the Netherlands. Elsewhere, the outcome of fiscal measures or decisions to vary central-government expenditures can be shown only in terms of budgetary receipts and expenditures themselves, and these have been presented in Chart 1 and in Appendix Tables III to XVIII. An inspection of these data against the background of the country illustrations below will reveal the extent to which the central government's financial transactions — whether the result of deliberate budgetary policy or the outcome of other factors — have tended, at different times, to reinforce or to counteract inflationary or recessionary tendencies elsewhere in the economy, and how far they have been consistent with any other regulatory measures in use.

The Netherlands

The Netherlands, as has been noted, has gone further than any other country in constructing an explicit model of the workings of the economy, and this seems to have led to a clearer understanding than in most other countries by parliament, and public opinion in general, both of the implications of budgetary and other policy measures and of the need for using them in a co-ordinated fashion. To the extent that the model can be relied upon, a greater quantitative precision can be achieved of the action required in different situations and of the probable outcomes of alternative policies.

A further characteristic of the Netherlands, shared with Norway and France, is reliance on a great variety

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[26] The Netherlands, Norway, western Germany, Austria, the United Kingdom, France and Belgium.

[27] For a detailed discussion of the relationship between domestic economic growth and the foreign balance, see Chapter III in the *Economic Survey of Europe in 1958.* Chapter II in the same volume dealt with the relationships between manpower supplies and economic expansion.

TABLE 2

Four economic policy programmes in the Netherlands

Restrictive policies	Million guilders	
1951 [a]		
Reduction of government non-military expenditure	140	
Reduction in consumers' subsidies	275	
Acceleration of tax collection	80	
Restriction of credits to the business sector	220	
Increases in taxes:		
Taxes on non-wage income	130	
Indirect taxes	35	
Other reductions of liquidity in the private sector	330	
1957 [c]		
Decrease in consumer's subsidies	10	(10)
Increase in prices of public utilities and other public enterprises	200	(300)
Increase in indirect taxes	45	(60)
Reduction in government expenditure	220	(235)
Reduction of investment by public enterprises	40	(40)
Increase in taxes on non-wage income (including suspension of investment facilities)	100	(100)
0.9 per cent reduction in, otherwise expected, general wage increase	..	..
0.9 per cent reduction in, otherwise expected, price increase through reduction in profits	..	..

Stimulating policies	Million guilders
1953 [b]	
Increase in capital transfers (including acceleration of war damage payments)	70
Increase in public works' expenditure	75
Decrease in indirect taxes	30
Stimulation of housebuilding	No precise estimate
1958	
Increase in public works' expenditure	65
Increase in other government expenditure	25
Effects of government policies on housebuilding expenditures (increase)	50

Sources: 1953 and 1958 taken from Budget Memoranda; 1951 and 1957 from Central Economic Plan 1957.

[a] The figures represent the extent to which the measures influenced the situation in the year 1951. Since some of them were taken in the course of the year, the effects in a full year were larger. (See also footnote 29). In addition, it was decided to limit general wage increases to such an extent that real wage rates would fall in a proportion equivalent to 5 per cent of the September 1949 level (real wage rates had already fallen by 10 per cent in 1950).

[b] These measures were proposed for 1953. The programme, however, was only partly carried out because the situation in 1953 was completely changed by the floods.

[c] These measures were proposed for 1957, and the figures in brackets are the expected results in a full year. The reduction in the rate of increase of wages was attained by not fully compensating for increased old-age insurance contributions. In addition to this, it was agreed that such general wage compensations (for old-age pension contributions and rent increases) as occurred should not lead to higher prices.

of budgetary and other counter-cyclical instruments. Thus building licensing has been used (as also in Sweden and Norway) and direct price controls; and a certain influence has been exerted by the government on wage formation.[28] The range of measures is sufficiently demonstrated in Table 2.

The variety of instruments used, and the precision with which they are quantified, can be illustrated by four economic policy programmes submitted during the period 1950 to 1958. The 1951 and 1957 programmes aimed to improve an unfavourable balance of payments by checking the rate of expansion of domestic demand; but a secondary objective in 1951 was to free some productive resources for defence purposes. On both occasions it was intended to achieve the necessary cut in overall demand by balanced restriction of most categories of domestic demand — private consumption, private and public investment and government non-military current expenditure — and policy instruments were chosen accordingly. The two programmes differed, however, with regard to the application of monetary instruments. These were of considerable importance in 1951, but did not appear at all in the 1957 programme, one consideration being that the liquidity of the private sector was already comparatively restricted (37 per cent of national income as against 46 per cent in 1951).

The expansionary measures in the 1953 and 1958 programmes were mainly centred on the building sector, where most of the unemployment had arisen. The increase in expenditure on public works in 1958 was aimed at reducing regional unemployment. In addition to these four major programmes, measures of a more or less incidental character have been taken in almost each year of the period considered.

The intended impact of each programme is illustrated in Table 2[29] and the actual outcome, in terms of annual changes in the more important variables under

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[28] The recognition that policies restraining overall demand cannot be relied upon significantly to affect the price of labour, unless pushed to considerable lengths, is reflected in the treatment of wages as an exogenous variable in the Dutch model.

[29] The figures in the table represent the immediate impact of the measures listed. They do not therefore represent in all cases the final (including multiplier) effects on private-sector incomes.

TABLE 3

Annual changes in government parameters in the Netherlands

Millions of guilders

	1950	1951	1952	1953	1954	1955	1956	1957	1958
Changes in government revenue resulting from:									
Changes in direct tax rates on:									
Wages and salaries	0	−95	−20	0	−80	−15	−70	0	0
Other incomes [a]	−10	−190	−40	−150	−250	−240	+80	+25	+30
Changes in indirect tax rates	+40	+230	−15	−50	−60	−125	−210	+200	+25
Changes in tax collection rate	n.a.	0	+500	+200	−50	−200	−50	+400	−200
Changes in central government expenditure:									
Consumption	+150	+360	+220	+180	+310	+210	+320	+90	−190
of which :									
Non-military	+50	+80	+50	+70	+90	+110	+90	+150	0
Investment (volume) [b]	0	+20	+40	+50	−40	−10	+20	+30	+10
Changes in total subsidies	−30	−10	−205	+60	+80	+95	+80	+300	+95
Changes in volume of housing and other construction activity [c]	n.a.	+80	−30	+570 [d]	−150 [d]	+10	+200	+130	−120
Percentage rise in industrial wage level resulting from general wage increase	+7	+8	+2	+1	+7	+4	+7	+5	+1
Net national product at market prices (billions of guilders)	27.17	19.51	20.34	21.84	24.56	27.62	29.75	32.06	32.89
Unemployment ratio [e]	2.7	3.1	4.6	3.3	2.3	1.6	1.2	1.6	2.9
Surplus on current account of the balance of payments (billions of guilders)	−1.1	−0.3	+1.8	+1.4	+0.3	+0.8	−0.7	−0.5	+1.6

Source : Central Planning Bureau.

[a] Including abolition of investment allowances.

[b] Partly also included in " Housing and other construction activity ".

[c] Excluding uncontrolled construction work.

[d] Largely influenced by floods in 1952.

[e] Unemployment as percentage of dependent working population.

full or partial government control is shown in Table 3 together with the behaviour of the major economic categories it was intended to affect. The measures adopted have sought to take into account the underlying tendencies, sometimes, of course, reflecting previous policy changes. For instance, the autonomous reduction in direct tax revenue in 1951, in spite of the raising of tax rates in that year, was due to tax reductions already made in 1950. Had tax rates not been raised in 1951, the autonomous fall in tax receipts would have been bigger still.

The high level of unemployment in 1952 suggests that the effect of central-government operations was to some extent pro-cyclical despite the large increase in military expenditure. Central-government investment expenditure certainly rose, but this was not enough to have any marked effect and the unemployment programme of 1953 might well have been introduced a year earlier.

In the boom years 1955 and 1956 the impact of the central-government budget and other policies was decidedly such as to reinforce inflationary pressures, as is apparent from the large reduction in tax receipts (the outcome of substantial cuts in tax rates in 1954 and 1955), from the very high level of government-influenced building activity and from the failure to check wage increases. That the relevant policies during this period turned out to have been expansionist in their effects may have partly been due to erroneous forecasts of underlying economic developments — including an under-estimation of the strong psychological reaction to a long period of austerity — and also to over-optimism regarding the possibility of limiting wage increases. In these circumstances, the 1957 deflationary programme appears to have been justified in its severity, and the 1958 programme adequately expansionist — given the strong underlying pressure of demand which produced rapid economic recovery in 1959. This has now led to the adoption of new restrictive measures — started in 1959 and continued in the 1960 budget.

The general impression derived from the analysis of Table 3 is that, even in a country where the forecasting of economic developments and the quantitative evaluation of the effects of policy measures is based on such careful and comparatively precise methods, it is still easy to overshoot the mark — as in 1952 — or to reinforce tendencies which would probably in any case have had to be corrected, as in 1955 and 1956. However, the fact that economic developments are kept constantly under review, and that machinery exists for rapid adaptation of policies to the diagnosis of the economic situation has undoubtedly helped to reduce cyclical disturbances in an economy that has been faced with fairly serious structural problems. Moreover, the experience gained up to 1956 has certainly contributed to the more selective and discerning nature of recent policies, which have secured a quicker and closer adjustment of developments to policy objectives in recent years than was usual in the more distant past.

Norway

In Norway, the process of preparing the fiscal budget is closely linked with the setting-up of a national budget. Tentative national budget forecasts serve as a background for discussions of economic policy, including government expenditure and taxation policies, at Cabinet level; and the final fiscal budget as proposed to Parliament is then reflected, in turn, in the national budget document accompanying it. This is essentially an appraisal of the current economic situation and a justification of economic policy proposals derived from such assessment. The constant watch kept for deviations of actual economic developments from the national budget forecasts, combined with a high degree of flexibility of budgetary instruments, makes for rapid adjustments of policy to the requirements of the economic situation.

In the choice of policy instruments the main weight has been on selectivity. In general, the Labour Party in power has tended to rely more on budgetary than on non-discriminatory monetary instruments since it considers the latter as too blunt and slow-working. Budgetary instruments have been highly developed and refined, and monetary measures have taken the form largely of selective credit controls and of variations in the lending operations of the state banks (which are important in Norway, as in France). Reliance continues to be placed on some direct controls, including building licensing, to an extent greater, probably, than in any other western European country.

As can be seen from Chart 1 and Appendix Table XIV, annual changes in the central-government's savings surplus have been considerable, reflecting the flexibility of some expenditures (particularly transfer payments — largely subsidies — and tax receipts). On the other hand, both central-government consumption and investment have shown only minor year-to-year variations.

Illustrations of the use made of fiscal measures can best be related to different phases of post-war economic development.

In the first phase, from 1946 to 1952, the overriding goal of fiscal policy was to mop up post-war excess demand. For this purpose taxes were raised to unprecedented heights and government expenditure was restricted. However, the policy of keeping the cost-of-living index virtually stable required considerable increases in price subsidies; and for the same purpose the general purchase tax rate was cut from 10 per cent to 6¼ per cent in 1947. This second objective thus involved measures directly conflicting with the first. Budget surpluses could not be kept so high as the Treasury would have liked them to be, and the net contribution of fiscal policy in these years to the decrease of demand pressures was probably not very impressive. Physical controls were therefore also required to help preserve price stability, and five years after the war ended consumer-rationing was still in force. The great change came after the devaluation of 1949, when the policy of keeping the cost-of-living index absolutely stable was abandoned. In 1950, subsidies were cut and the purchase tax rate restored to 10 per cent. Central-government savings rose by some 2 per cent of gross national product and this, together with the effects of devaluation on income distribution, brought a quick end to excess demand in consumers' markets. Rationing of consumers' goods was almost completely abolished during 1950-1951.

Following the post-Korean recession, fiscal policy turned definitely less restrictive in 1953 than in the immediately preceding years: relaxed taxation and slightly increasing subsidies reduced central-government disposable income (net of transfer payments) by the equivalent of more than 1 per cent of gross national product in two years; at the same time, public expenditure on goods and services rose in proportion. As a consequence, the central-government savings surplus dropped by an amount equal to more than 2 per cent of gross national product from 1952 to 1954. At the same time, private building activity rose in response to freer granting of building licences.

The consequences of these measures made themselves rapidly felt. Not only was an early revival from the recession brought about, but an investment boom was started which called for the brakes to be gradually re-applied. The reversal to a more restrictive course took place exceptionally early in Norway. During 1954 and early 1955 a combination of many highly selective monetary and fiscal measures and direct controls was adopted: a tightening of building licensing; intensified control of new capital issues by the private sector and by local authorities; the introduction of a 10 per cent investment tax on motor vehicles and new buildings other than dwellings and agricultural buildings; slight cuts in public investment expenditure; a withdrawal of the exemption from customs duties of imported machinery of types not produced in Norway;

a cut in the volume of new loans by state banks; a rise in the discount rate from 2.5 per cent to 3.5 per cent and corresponding changes in other interest rates; an attempt to reduce liquidity through the sale of government bonds to private banks, and restrictions on bank lendings.

The excessively rapid rise of investment was brought to a halt; but overall and — in the view of the Norwegian authorities — satisfactorily balanced expansion was soon resumed. The success in rapidly checking excess demand in the boom of 1955 without slowing down the rate of expansion for long contrasts, however, with the excessively contractive effect of central-government operations in 1957 and 1958.

On 1 January 1957, Norway switched to a pay-as-you-earn system of direct personal taxation, which meant that unchanged tax rates were applied to current incomes instead of to incomes earned one to two years earlier. It was foreseen that this would raise tax receipts in the first year of its application, but the size of the increase was seriously under-estimated. Direct tax receipts in 1957 in fact went up by an amount equal to 0.8 per cent of gross national product, an increase which was only partly offset by an increase in transfer payments. The result was that central-government saving for the year rose by the equivalent of about 0.6 per cent of gross national product. Changes of a similar magnitude took place in local taxes and savings, so that total public saving in 1957 increased — mainly unintentionally — by 500 million kroner or close to 1.3 per cent of gross national product. There is no question that the heavier taxation had a quick, and marked, effect on personal consumption; and it contributed greatly to the slack in the consumer-goods industries towards the end of 1957 — just about the time when the international recession also began to make itself felt.

As late as in the spring of 1958, the full extent to which taxation was reducing private disposable income was not yet fully recognized by the authorities.[30] On the basis of the information it had, the Treasury planned fiscal policy for 1958 largely along the lines of the previous year, implying a repetition of the heavy budget surplus of 1957. Under the circumstances this policy proved too restrictive. The fact that the international set-back in 1958 made itself felt more heavily in Norway than in some other countries was, therefore, largely due to an error of fiscal policy formulated on the basis of erroneous information.

The authorities took a very cautious attitude towards counteracting the 1958 recession. The balance on foreign account was already causing concern, and there was widespread fear that balance-of-payments problems might become acute in the international recession which appeared to be developing, if strong measures to stimulate domestic activity were taken too early.

The minor stimulating measures taken included: an increase in the state banks' lending quotas by 30 million kroner in 1957 and an additional 70 million kroner in 1958; exemption by 1 July 1958 — for the purpose of stimulating municipal building — of school buildings and hospitals from the 10 per cent investment tax introduced in 1955; release by 1 September 1958 of 300 million kroner of private funds, which had been kept on blocked accounts since the early post-war period; the use of an extra 130 million kroner of state money for public works during the winter of 1958-1959; and reduction in the progressiveness of the state income tax, effective from 1 January 1959 and intended to decrease the amount of tax collected by some 250 million kroner in a year.

Against this has to be set the fact that the income tax for 1958, as pointed out above, was already running at a very high rate and that a mistake — from the point of view of anti-cyclical policy alone — had been made in the spring of 1958, when subsidies were cut by some 200 million kroner (annual rate). Thus, on balance, fiscal policy in 1958 seems to have helped little to counteract the downward trend of the economy.

Western Germany

In western Germany, government-sector operations have not so far been used deliberately to counteract what were considered short-term inflationary pressures or to reverse deflationary tendencies. The main objectives of budget-making have been to finance by traditional means the traditional tasks of government, to provide for social needs arising from the aftermath of war, more recently to build up a defence force and, in the macro-economic sphere, to provide a favourable framework for the activities of the private sector — through tax reductions or exemptions and other incentives to investment and saving and through the supply of credit for priority investments such as dwellings. These policies were pursued on the whole with little regard to the currently prevailing overall economic situation; and changes of emphasis have sometimes run counter to what were considered by the monetary authorities to be the policy requirements of the moment.

It is, of course, questionable whether more deliberate counter-cyclical budgetary policies would have led to a still more favourable economic development in western Germany. The conditions which have rendered the " west German economic miracle " possible have been frequently discussed.[31] More recently, however, the situation has changed fundamentally in the important respect that the period of ample additions to the labour supply — which have facilitated a rapid rate of expansion combined with wage pressures more moderate than in many other countries — has come to an end. Henceforth, in western Germany as elsewhere, the path between inflationary and recessionary tendencies will be narrow.

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[30] This may be explained by the fact that a large amount of taxes which had been withheld under the pay-as-you-earn system had not yet shown up in public accounts, but had been accumulated by tax collectors and employers from whom no statistical data were available.

In view of the continuous balance-of-payment surpluses and rising foreign exchange reserves experienced since the early fifties, it may be further questioned whether there was any time in this period when reasonable price stability could not have been maintained by other means than checking domestic economic expansion — as was in fact done through the adoption of restrictive credit policies in 1955. But even if the necessity for policies of overall restraint, either during the boom of the mid-fifties or during the present phase of renewed expansion, may be doubted, the question still arises whether the choice of instruments has beent appropriate, given the policy targets. The simultaneous achievement of price stability, a relatively high rate of growth and a smaller balance-of-payments surplus is more likely to be achieved in future by a combination of measures — budgetary, monetary and other — than by sole reliance on rather undiscriminating domestic monetary instruments.[32] To the extent that the latter restrict the expansion of private investment, this must be inimical to optimum long-term growth. Moreover, since the import content of private investment is certainly higher than that of dwellings construction or public investments like road-building, higher interest rates in the private sector, imposed in preference to restriction of such expenditures, must tend to restrict import-intensive activity as well as being unfavourable to capital exports.

Three main reasons have prevented a deliberate integration of budgetary operations into economic stabilization policies. First, the authorities responsible for budget-making have, until recently, focused on different objectives, as mentioned above.[33] Second, there are a number of obstacles to cutting expenditure when the public sector competes with private demand for real resources: these comprise mainly commitments for infra-structure and social investments — so far of overriding priority — such as dwellings, roads, schools and hospitals ; for defence expenditure, which has started very much later than in other western European countries and is gaining momentum only now; and for large disbursements in subsidies under the Green Plan (designed to raise output, productivity and living standards in agriculture).[34] In this respect greater flexibility should, however, become possible in a few years when, in particular, the housing programme will have been completed. The third impediment to an " active " budgetary policy resides in the federal constitution. Central-government [35] expenditure constitutes only about 50 per cent of the total for all public authorities, and the Federal Government exerts only a limited influence on the budgetary operations of the *Länder* and the *communes*. This inevitably limits the potential role of public budgets as counter-cyclical instruments, unless co-ordination of Federal and Länder policies can be carried further than has so far been found appropriate in most federal states.

Further difficulties arise from the widespread acceptance of comparatively antiquated budget concepts and institutional arrangements that prevent quick adaptation of central-government operations to changing conditions.[36] These are, indeed, both a cause and a reflection of the role hitherto played by budgetary policy in influencing the short-term development of the economy. The law relating to budget balancing, although little practical meaning attaches to it, reflects the prevailing negative attitude towards deliberate planning of budgets as counter-cyclical instruments. Further, the enormous difference between official fiscal statistics and central-budget cash operations, shown below, makes it impossible to derive from either budget estimates or closed accounts a clear picture of the budget's probable or actual economic implications.

Millions of DM

	Official budget surplus or deficit	Adjusted according to the cash principle
1951/52	−1 065	−402
1952/53	+646	+1 242
1953/54	+367	+1 564
1954/55	+414	+1 262
TOTAL .	+362	+3 666

Source : Wilhelmine Dreissig, " Die Abschlussergebnisse des Bundeshaushaltes für die Rechnungsjahre 1949/50 bis 1954/55 ", *Finanzarchiv*, Band 16, Heft 3, 1956.

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[31] See in particular the *Economic Survey of Europe in 1958*, Chapter III, p. 24 *et seq.*

[32] This is, in fact, increasingly recognized in western Germany. " The present situation is once more a very pungent reminder that the tools of economic policy outside the field of money and credit, i.e. above all the adjustment of fiscal policy to the state of the economy, must be more fully developed if the aims of monetary stability and steady growth are to be attained." See *Economic Situation in the World and in western Germany at the end of 1959*, joint analysis of the economic situation by the Arbeitsgemeinschaft deutscher wirtschaftswissenschaftlicher Forschungsinstitute, Bonn.

[33] This has also been reflected in the deliberate abstention from using public-enterprise investment for economic stabilization policies (referred to in Chapter V, section 4).

[34] " It should not be overlooked that expenditure provided for in public budgets is mainly determined by public responsibilities whose appropriateness must be judged by criteria other than economic. Sufficient leeway to operate with a view to anti-cyclical effects exists, on the other hand, in the field of public investment and contributions to, or public loans for, private investment projects. This instrument of an anti-cyclical policy, supplemented by a corresponding revenue policy, has hardly ever been applied in Germany." (See source cited in footnote 32.)

[35] Including the Equalization of Burdens Fund.

[36] See Chapter V, section 3.

The process of negotiations for tax changes through the parliamentary machinery is extremely slow[37] and tax increases are considered, almost *a priori*, as both economically undesirable and politically impracticable.

Nevertheless, western Germany provides an interesting, and probably unique, case of a central-government sector operating in the same contractive direction as credit policy during the boom period of 1955 and 1956, although for reasons entirely unrelated to overall economic policy formulation. In 1952/53, the federal budget showed a cash surplus for the first time, and this continued until 1956/57. In the beginning, this was connected with the fact that occupation authorities utilized less than the amounts budgeted on their behalf. Subsequently the accumulation of central-government balances was largely accounted for by the application to armament expenditure of the budgetary rules already referred to in Chapter V, section 3. The budgeted amounts in the first three years of the rearmament programme could not be spent within the fiscal year, and the unspent portion was entered into cash reserves held by the Bundesbank and thus withdrawn from circulation. This was both politically and institutionally easy: economic arguments were hardly considered. The result, however, was that central-government operations had a decidedly contractive effect, partly offsetting the rise in liquidity due to the increasing foreign exchange holdings of the central bank. From the point of view of other countries a similar internal price stabilization brought about via smaller withdrawals of domestic purchasing power by the central government and a reduction in the balance-of-payments surplus would, of course, have been preferable.

Concern was expressed in many quarters at the time about the dangers inherent in the building-up of large government cash reserves. It was feared that the subsequent disbursement might provide an ill-timed inflationary impetus to the economy, as well as stimulating claims for increased public expenditure and tax reductions made in the knowledge that large cash holdings existed. Cash reserves in fact began to be disbursed in 1957, and this movement has continued to the present time. However, the cash deficit from 1957 onwards, as the figures below indicate, was more than accounted for by various payments abroad (debt and compensation payments and armament imports) and the effect of central-government operations on the domestic economy continued to be contractive, particularly in 1958, when the rate of expansion had slowed down very markedly and the Bundesbank had made several successive reductions in the discount rate.

Cash surplus (+) or deficit (—) of central government[a]

Millions of DM

	Domestically effective	In payments abroad[b]	Total
1954	+1990	−576	+1414
1955	+2602	−641	+1989
1956	+2179	−1049	+1215
1957	+670	−3109	−2356
1958	+2106	−2744	−410

Sources : Report of the Deutsche Bundesbank for the years 1956 and 1958.

[a] Receipts consist of in-payments to the Federal Government's accounts at the Bundesbank (excluding counterpart accounts and STEG accounts) *minus* receipts from the incurring of debt. Expenditure comprises out-payments from the Federal Government's accounts at the Bundesbank (excluding counterpart accounts and STEG accounts), *minus* expenditure on redemption of debt but including lendings to other public authorities.

[b] External debt service, foreign exchange payments under the Israel Agreement, payments and advance payments for armament imports, contributions to international organizations, expenditure on diplomatic missions, etc.

A renewed expansion has started in western Germany in the first quarter of 1959 and has since accelerated; and inflationary pressures are beginning to make themselves felt in certain sectors, particularly in the building industry. The Bundesbank has reversed its former policy of credit relaxation, and is now concerned with combating credit expansion. However, central and local government expenditures have continued to increase and, for the first time in the post-war period, a clash between the authorities responsible for monetary and budgetary policy began to emerge during 1959.

This clash, and the extent to which the central bank rather than the Treasury is called upon to take chief responsibility for overall guidance of the economy, found expression in a resolution adopted by the Central Bank Council in November of that year. This put the case for a co-ordination of budgetary and monetary policies very clearly.[38] While the Finance Minister expressed his agreement in principle that a better adaptation of budgetary policies to the requirements of the economic situation was needed, he pointed to the political difficulties in the way of building up budget surpluses, and stressed that it would not be sufficient if the central government alone behaved counter-cyclically. " The major part of public investment falls on the *Länder*, *communes* and communal bodies. To induce this multiplicity of public households to curtail their investment has hitherto been found difficult to achieve." However, it is reported that a cut in extraordinary expenditure — amounting to 3 billion Deutsche Marks, or about 1 per cent of gross national product — is included in the 1960/61 budget proposal.[39]

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[37] In October 1950, when there was still a considerable slack in the economy, it was proposed to reduce taxation. But the discussions lasted until mid-1951 and there was a further delay in putting the measure into effect. By that time the Korean boom was in full swing and an increase in taxes would have been more appropriate.

[38] " The Central Bank Council observes with concern the tendency for a continued, in part substantial, increase in expenditure by the Bund, the Länder and communes. This tendency is all the more serious as there is evidently no intention to ensure a corresponding increase in current revenue through tax increases . . . The present conjuncture is characterized by a strong expansion in demand which in many instances exceeds the capacity of the economy . . . A counter-cyclical behaviour of budgetary policy would be highly desirable in such a situation . . . The Central Bank Council therefore appeals urgently to all the authorities responsible for the conduct of budgetary policy to behave as far as possible in a counter-cyclical way when they establish the next budget and thus to support the credit policy of the Bundesbank and even, as far as possible, to reduce the burden placed on it." See *Monthly Report of the Deutsche Bundesbank*, November 1959.

The experience of the fifties can be briefly summarized. During the boom period, credit policy and central-government operations worked in the same direction; but the contractive effect of the central-government sector was partly accidental and due to political and institutional factors rather than to a co-ordination of budgetary with credit policy on economic grounds. In 1958 credit policy was one of moderate relaxation but budgetary operations continued to have a contractive effect on the domestic economy, despite the substantial overall budget deficit. However, since efforts to stimulate a renewed expansion were still very tentative and cautious, one cannot say that there was a real conflict. Recently, however, as has already been pointed out, monetary policy and budgetary operations have worked in opposite directions.

Austria

In Austria, considerable emphasis has recently been placed by the authorities on the importance of the budget as a tool for *Konjunkturpolitik*.[40] This has been in the foreground of recent budgetary discussions and a key-note of many of the Finance Minister's statements. While the existence of a coalition government may call for compromise solutions on some policy issues, in this particular sphere both parties appear to agree on the appropriateness of, and indeed the necessity for, using the budget as one instrument of an active counter-cyclical policy.

But despite awareness of the role that the budget, and other public sector activities, could be made to play in pursuit of the aims of Austrian economic policy — a role facilitated by the wide scope of the public sector — the extent to which public receipts and expenditures could be purposively varied has been rather limited until recently. In particular, as was pointed out in section 4 of the preceding chapter, investment decisions by the large public-enterprise sector are little influenced, in the short term, by the central government.[41]

Variations in central-government budgetary operations have, on the whole, been concentrated on the expenditure side. Reductions in indirect taxes and increases in subsidies have been used from time to time for purposes of price stabilization, and income taxes were lowered in 1953[42] and 1955 with the aim of stimulating consumers' demand. But revenue from taxation, as a share of gross national product, remains among the highest in western Europe, and the Finance Minister has expressed a disbelief in the possibility — and usefulness — of tax increases: "I do not believe that it is possible to achieve results with this kind of *Konjunkturpolitik*. First, because the withdrawal of purchasing power through taxes is only real if tax receipts are sterilized in the budget . . . And I ask myself in which democratic system it is possible to do this in the face of an overwhelming pressure of unsatisfied demands ".[43] However, on the expenditure side, also, difficulties in the way of curtailing public outlays are considered to be great. Expenditure items for which there are continuing legal commitments have increased by more than 100 per cent between 1954 and 1959, within a 63 per cent increase of total expenditure; and the figures below show that the proportion of virtually irreducible central-government expenditure in 1957 amounted to over 80 per cent.[44] The remainder consisted largely of public investment, investment loans and subsidies. This has very much limited the possibilities of an effective contraction of public expenditure at the height of the boom.[45]

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[39] Speech by the Finance Minister before Parliament on 10 December 1959.

[40] The following statement reflects the official viewpoint in this connexion: "The more the public sector grows and the more economic tasks it takes over, the greater becomes the need for an economic approach to the budget. Modern financial policy can no longer be satisfied with considerations of financial techniques relating to the volume of public expenditure and the possibilities for covering it, but must take into account that administration and economic policy are mutually interrelated and how they further or hamper each other. It must consider which part of disposable goods and services should be appropriately devoted to present or to future needs, whether and to what extent the distribution of private incomes requires to be corrected and which measures of budgetary policy can secure full employment, monetary stability and steady growth" (Österreichisches Statistisches Zentralamt and Österreichisches Institut für Wirtschaftsforschung, *Der öffentliche Haushalt in der volkswirtschaftlichen Gesamtrechnung*, Vienna, 1956.

It is significant in this context that Austria is one of the countries in which budgetary figures are published on a national accounting basis side by side with the traditional presentation.

[41] The share of public-sector investment in total gross fixed investment amounted to over 44 per cent in 1957; in addition, the government exerts a strong influence over private investment activity through the granting of substantial investment loans.

[42] This was reflected — with a time-lag — in a fall in tax revenues as a share of gross national product in 1954. (See Chart 1.)

[43] See Prof. Dr. R. Kamitz, *Steuern und konstruktive Wirtschaftspolitik*, Heft 46, Institut für Finanzen und Steuern, Bonn.

[44] The Finance Minister appealed to Parliament in his 1958 budget speech to proceed with the greatest possible caution when deciding upon legislation which would create lasting financial commitments.

[45] Although this problem is being particularly stressed by the Austrian authorities, some other countries, of course, face similar problems. Thus, a Swedish public committee recently summarized its inquiry into the possibilities for making cuts in central-government expenditure, as follows: "We have found the financial development of the State to be fundamentally determined by decisions taken in respect of some few, but large, expenditure items. A savings campaign, therefore, which does not include some of the dominating budget items, is bound to have only limited effects. What attracts attention, then, are

Expenditure of central government in 1957

	Million schillings	Percentage
A. Rigid expenditure items		
Legally committed expenditure	10,060	29.2
Administration	14,820	43.0
Current expenditure for monopolies and government enterprises	3,239	9.4
TOTAL	28,119	81.6
B. Other expenditures	6,335	18.4
TOTAL	34,454	100.0

Source : Erläuterungen zum Bundesfinanzgesetz 1959, Vienna 1959, p. 24.

In the circumstances, and as in some other countries, the main reliance has so far been placed on monetary policy when restraint of demand has been considered necessary in Austria; and the monetary weapons at the disposal of the central bank, which had previously been very limited, were substantially increased and sharpened in 1955.

Nevertheless, as can be seen from the figures below, efforts were made to curtail public investment expenditure in 1956. The budget for that year provided for a substantial cut in central-government investment outlays and, although actual disbursements far exceeded the amounts budgeted for,[46] a curtailment by 12 per cent below the 1955 level was achieved.

Investment expenditure of the central government

Millions of schillings

	1955	1956	1957	1958	1959
Budget	4,543	3,706	..	5,584	6,158
Closed accounts [a]	5,423	4,791	5,311	6,462	
Percentage of total expenditure [b]	19.1	15.7	14.8	15.9	15.8

Sources : Erläuterungen zum Bundesfinanzgesetz 1959, p. 25; and direct communication from the Austrian Government.

[a] Excluding releases from counterpart funds and credits from the Export-Import Bank.

[b] Referring to total ordinary and extraordinary expenditure in closed accounts, except for the 1959 percentage which is based on budget figures.

This was partly due to the counter-cyclical operations of a long-term investment programme, particularly designed for this purpose, which provided for an expenditure of 10 billion schillings over the years 1954 to 1963. The carrying out of this plan — covering expenditure year by year on road construction, the electrification of railways and modernization of postal services — is intended to be speeded up in times of stagnation or recession and slowed down in times of excess demand.

As the figures below show, the projects carried out fell short of the planned expenditure in the first year presumably because some programmes could not be begun as quickly as originally foreseen. In 1955 actual expenditure was about equal to that originally planned. In 1956, when it was desired somewhat to dampen overall demand, quite a substantial cut was made below both the expenditure originally planned for that year and the actual 1955 rate.

Long-term investment programme 1954 to 1963

Millions of schillings

		Post	Railways	Autoroute	Total
1954 —	Planned	283	547	100	930
	Carried out	82	556	44	682
1955 —	Planned	238	684	450	1 372
	Carried out	291	685	352	1 328
1956 —	Planned	249	681	450	1 380
	Carried out	193	518	462	1 173
1957 —	Planned	251	639	450	1 340
	Carried out	232	635	375	1 242
1958 —	Planned	282	632	450	1 364
	Budgeted	282	638	550	1 470
1959 —	Planned	247	601	450	1 298
	Budgeted	165	778	550	1 493

Source : Erläuterungen zum Bundesfinanzgesetz 1959, p. 221.

When it was decided in 1958 to stimulate domestic demand, in order to counteract the deflationary impact on the economy of slackening exports, this was done almost entirely through budgetary means.[47] Central-government investment expenditure in 1958 exceeded budgeted expenditure by 16 per cent [48] and actual expenditure in 1957 by 22 per cent.[49] Expenditure under the long-term investment programme accounted for about 24 per cent of the increase from 1957 to 1958. The fact that the budget was used energetically on this occasion is also clearly reflected in the budgetary aggregates presented in Chart 1 and Appendix

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expenditures relating to the following purposes: defence, family allowances, housing, health insurance, other social insurance, roads, the deficit of the State railroad system, grants to local authorities, and agricultural subsidies." In 1959/60, these nine expenditure categories accounted for 8.1 billion Swedish kroner, the remaining 4.5 billion Swedish kroner consisting of expenditures which are considered to be virtually non-compressible. The committee concluded by proposing savings on three out of the nine major items, amounting to some 300 million Swedish kroner or less than 3 per cent of total expenditure, to be achieved gradually over a 5-year period through changes in the housing policy (Swedish kr. 160 million), the closing down of uneconomic railroad lines (Swedish kr. 100 million), and cuts in grants to local authorities (Swedish kr. 70 million). (See *Besparingar inom Statsverksamheten*, S.O.U., 1959: 28, p. 37 and pp. 261-262).

[46] The large excess of actual over budgeted expenditure is accounted for by the fact that certain receipts which rose sharply during the boom were earmarked for specific expenditures (for example, the mineral-oil tax for road-building). Further, building costs rose steeply during the period under consideration and larger amounts were required, therefore, to finance the previously approved volume of construction.

[47] There was a long hesitation to reverse the restrictive monetary course, and it was only in the spring of 1959 that the discount rate was lowered.

[48] The Finance Minister can revise expenditures upwards during the fiscal year provided excess current revenue is available.

[49] The increase amounted to almost 1 per cent of gross national product, and over 3 per cent of total gross fixed investment, in 1957.

Table III. The strong increase in current transfers from the public sector in 1958, together with the increase in public investment, resulted in a sharp decline in the central-government savings surplus both in absolute terms and as a share of gross national product.

In the expansionary economic setting at the end of 1959, the central budget is again being vigorously used to check inflationary tendencies. The 1960 budget provides for a very substantial cut in the overall deficit below either its 1959 or its 1958 level; and, in fact, the deficit foreseen is the lowest since 1953. In his budget speech of 28 October 1959, the Minister of Finance stated that " the setting up of the budget for 1960 takes into account counter-cyclical considerations to the greatest possible extent ". Extraordinary public expenditure is to be curtailed by almost 1.8 billion schillings — or by almost 40 per cent below the amount budgeted for 1959 — mainly by delaying investment expenditure under the long-term programme.

The United Kingdom

In the United Kingdom, as in most other countries in western Europe, official statements of the objectives of policy since the war have always included the main constituents of economic well-being — a high and stable level of employment, a steady growth, approximate price stability, and balance-of-payments equilibrium. It has usually been considered, in the United Kingdom, that both a high rate of domestic capital formation and considerable investment overseas and/or in building up foreign exchange reserves were essential elements in the second and fourth of these objectives. Moreover, in recent years the avoidance of direct balance-of-payments controls, the protection of the exchange value of sterling, and its ultimate full convertibility have been raised to the status of objectives of policy.

The relative priorities accorded to these objectives in the short term have varied from time to time; and, in fact, the British economy has been confronted, throughout the post-war period, with a number of basic problems that have rendered particularly difficult — if not impossible — the simultaneous achievement of even the first four objectives mentioned above. There has been a narrow margin for domestic expansion due to a relatively inelastic labour supply, a — partly consequential — low elasticity of commodity output (which has implied a high marginal import content of domestic demand) and a vulnerable external capital account arising from the role of sterling as an international currency.[50] Large swings in the capital balance, and resulting foreign exchange crises, have several times obliged British Governments to reinforce restrictive policies unjustified — at least in the degree of severity with which they were applied — by the domestic situation alone. At the same time, the interdependence of British trade with that of overseas primary-exporting countries is such that contractive policies in the United Kingdom, by affecting both directly and indirectly the purchasing power of its overseas trading partners, eventually tend to recoil upon its own report receipts.

The task of reconciling the major objectives listed above has been rendered more difficult by high defence expenditure.[51] To what extent some institutional factors — such as the system of wage determination — have imposed greater hindrances in the United Kingdom than elsewhere is difficult to assess; but certainly the upward pressure on wages associated with virtually full employment throughout most of the period has complicated the task of reconciling short-term restraint of aggregate domestic demand with the long-term aim of high and rising productive investment.

In the earlier post-war period of physical shortages, direct controls both influenced the domestic allocation of resources and restricted imports and other external expenditure while fiscal measures limited the excess of domestic purchasing power over available resources. From 1951 onwards the relative weight given to different instruments for short-term guidance of the economy changed, with the progressive abandonment of consumer-rationing and other physical controls and a progressively greater emphasis on monetary as compared with fiscal measures. Political preferences for measures which, it was considered, constituted general " influence " rather than specific " direction " of private-sector activity partly determined this change,[52] as did the view that both economic and political desiderata dictated a considerable reduction of the very high war-time and immediate post-war rates of personal and other taxation. Moreover, greater reliance on monetary policy was encouraged by institutional factors: neither tax changes (apart from variations in some indirect taxes) nor large changes in government current expenditure can, in the United Kingdom, be achieved rapidly, or independently of the processes of parliamentary approval (see Chapter V, section 3) whereas monetary policy — immediately affecting, if desired, both the cost and the availability of credit — can be changed virtually overnight.

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[50] These structural problems have been dealt with in more detail in the *Economic Survey of Europe in 1958*, Chapter III, pp. 21-22.

[51] Military expenditure absorbed between 9 and over 7 per cent of gross national product in the period 1952 to 1958.

[52] The credit squeeze of 1955 was, in fact, accompanied by general directives to the banks and to the Capital Issues Committee concerning the priorities to be accorded different classes of borrowers, but in the case of banks' decisions were left to the judgement of individual managers. Moreover, as noted below, monetary measures have been used also to affect the availability of specific forms of credit to consumers (for example, the frequent changes in rules governing hire-purchase).

For the purpose of influencing the level of private consumption, tax reliefs have readily been used to provide stimulus and frequent recourse has been had to variations in hire-purchase regulations. The latter have a strong effect on the timing of expenditure on consumers' durables; but this effect is short-lived and their impact on the long-term growth of overall consumption doubtful. Among fiscal measures, rates of subsidies and of indirect taxation have been varied in accordance with the assessment of the effects of such measures — both via their direct impact on real disposable incomes and via cost-of-living changes and consequential wage demands. However, a reduction in income tax was made even at the height of the boom in 1955 for the stated purpose of providing greater incentives to saving and effort. Investment allowances have been introduced or withdrawn in accordance with changes in views regarding the desirability of stimulating private industrial investment.

The more limited use than in some other countries (notably Norway and the Netherlands) of budgetary instruments as restraining or stimulating influences is reflected in the movements of central government receipts and expenditures presented in Chart 1. Total current revenue of central government has been a steadily declining proportion of gross national product between 1952 and 1957; and this was accounted for by a decline in revenue from indirect taxes in relation to national product. The share of direct taxes showed minor variations, not closely related to variations in official assessments of inflationary of deflationary pressures; and over the period as a whole it also displayed a downward tendency. On the expenditure side, the share of central government consumption in gross national product declined substantially over the same years, but this was entirely due to the falling share of defence expenditure.

Central-government investment is a very small proportion both of gross national product and of total investment and, as already pointed out in section 2 of Chapter V, the total of government investment is also proportionately lower than in other countries. Such cuts as could be made would, at any rate, have had only a slight direct impact on total demand; but, whereas the share of central-government investment declined from 1954 to 1955 and again very slightly from 1955 to 1956, general (central and local) government investment remained unchanged from 1955 to 1957 — at a time when the restraint of demand was an objective of policy. Investment by the public corporations (a much more important magnitude) increased rapidly throughout the period, the rise being particularly sharp in 1957. (See section 4, Chapter V.)

Instances of these general characteristics of British budgetary policy can be drawn from the experiences of the fifties. The first time since before the war that real slack appeared in the economy was in 1952, and measures were taken in 1953 and 1954 to stimulate domestic demand. Budgetary measures, as has usually been the case in other countries also, were used quite extensively to spark off an expansion, and both the 1953 and 1954 budgets were decidedly reflationary.[53] Consumption by the central government rose in both years, while its investment expenditure remained a constant proportion of gross national product, and its savings surplus declined very markedly from 1.6 per cent of national product in 1952 to 0.4 per cent in 1954.

Both private consumption and private investment started to expand rapidly in the course of 1954, partly in response to the personal-tax changes and to the introduction of the investment allowance; and monetary policy went into reverse and hire-purchase restrictions were restored in 1955. The 1955 budget was nevertheless largely of an "incentive" character, and public-sector operations had, on balance, only a very slight restraining influence on the economy. Central-government investment indeed declined somewhat in relation to gross national product, while the share of civil consumption remained stationary, and a sharp increase in current receipts also contributed to an increase in the central savings surplus. But this was little more than sufficient to compensate for a sharp rise in investment by public enterprises.

Strong expansion in the private sector helped to bring about a marked deterioration of the balance of payments on current account, reinforced in its effect on gold and foreign exchange reserves by speculative capital movements following rumours of convertibility and devaluation; and the supplementary budget of October 1955 [54] was regarded as an emergency move. It raised taxes on consumption and also on profits, provided for a reduction in public-sector investment and curtailed lending to local authorities. Since the monetary and other measures already taken to check the overall growth of demand were considered to have proved inadequate, [55] either to remove the threat to the balance-of-payments position or to check the growth of domestic demand sufficiently to prevent excessive wage increases, it was decided in January

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[53] The 1953 budget included a 25 per cent cut in purchase tax, a reduction in the standard rate of income tax and the reintroduction of initial depreciation allowances, which had been suspended in 1952. In addition, the excess profits levy was abolished in January 1954. The 1954 budget introduced the powerful device of investment allowances which, in contrast to initial allowances, are an actual remission rather than a mere deferment of tax.

[54] A supplementary budget is only resorted to in critical situations. Previous occasions included 1939 and 1940.

[55] "Monetary restraint, on which policy to restrain demand largely rested in the early part of 1955, proved to be inadequate on its own to bring inflation under control, even though its techniques were more widely applied as the boom progressed. Moreover, a restrictive monetary policy is not without disadvantages in certain respects." *Economic Conditions in the United Kingdom*, OEEC, 1956.

1956 that investment growth must be temporarily accorded a lower priority among the aims of economic policy, and the investment allowance, which had proved a powerful stimulus to private investment, was abolished.

By the time the 1956 budget became due, it was apparently thought that enough restraints had been applied, and, in fact, industrial production stagnated from the end of 1955 till the spring of 1959. Nevertheless further restraints were imposed in 1957. The immediate cause was another balance-of-payments crisis in the autumn of that year, due more to speculative factors (involving also other currencies) than to domestic demand pressure on the current balance. The bank rate was raised to 7 per cent in September 1957 in the hope of checking speculative movements of capital across the exchanges, domestic borrowing was made more difficult, and cuts in government expenditure were announced.

At this stage the stated priority objectives were to protect sterling and to check cost inflation, and there was readiness to allow a temporary fall in employment if these aims should be otherwise unattainable. The extent of the necessary fall would depend, it was indicated, on the attitude of labour and employers to increases in personal incomes.[56]

In the course of 1958, the United Kingdom in fact achieved a very substantial balance-of-payments surplus, due primarily to the large decline in import prices. Confidence in sterling returned and the domestic price level stabilized. In the face of this fundamental change in economic conditions, accompanied by a general under-utilization of capacity, government policy shifted from restraint to cautious relaxation, aimed initially at putting a halt to the downturn in economic activity rather than at producing a definite upturn. The reason for caution was primarily the fear of a new cost/price spiral in conditions of much stronger demand for labour.

The measures taken in the course of 1958 consisted of a reversal of the highly restrictive monetary policy of September 1957 and, in the 1958 budget, a 50 per cent rise in initial allowances for investment in plant, machinery and buildings. In August, higher public investment expenditure was authorized in the areas of heaviest unemployment, and in October all hire-purchase restrictions were abolished. The measures had only modest effects on that year's output and employment, but consumers' expenditure began to rise in the fourth quarter of 1958. It was only in the April budget of 1959 that really energetic steps were taken to stimulate a renewed expansion. Considerable reductions in both direct and indirect taxation were then made and, to reinforce the indirect effect of higher consumer demand on investment, the investment allowance was restored. Finally, a marked increase in public investment was scheduled for 1959-1960.

A few major points which emerge from the policy experiences of the fifties may be summarized as follows. On the whole, monetary policy was mainly relied upon for instruments of restraint and was not adequately and promptly reinforced by budgetary measures. Since monetary measures take time to produce results and their effects are not easily predictable there was a tendency to take cautious initial steps which then had to be repeated, producing eventually more of a squeeze on domestic growth than was perhaps either intended or necessary for balance-of-payments equilibrium. Moreover, despite the use made of hire-purchase restrictions, more reliance on consumer-taxation at the very outset of the boom could have provided easier room for unchecked investment growth within the desired expansion of aggregate domestic expenditures.[57] When restrictive policies were reversed in 1958, this resulted mainly in a stimulus to private consumption,[58] which had begun to rise in the fourth quarter of 1958 and continued to expand after the 1959 budget,[59] while the volume of investment in manufacturing declined by 12 per cent between the first nine months of 1958 and 1959. Prospects at present are, however, that spending by manufacturing industry on fixed capital will increase by 14 per cent in 1960 while other sectors of private industry are expected to invest 20 per cent more than last year.[60] Thus, once again pursuit of one of the major targets of long-term policy seems to have been slow.

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[56] "We have already taken steps to limit the Government's expenditure, but this is by itself not enough. Under the recent measures, we have fixed in money terms for a period ahead the total available for public investment on such things as housing, schools, railways, electricity and so forth. We have taken similar action to restrain expenditure in the private sector by limiting the level of bank advances. Thus we have put ourselves in a position effectively to restrict the money supply over a wide field. Against this background, if an attempt were made to take out of the system in money income more than is put in by new effort and production, the only result would be a reduction in activity and the employment of fewer men. The only other thing I would say about these measures is that I am confident that they will be effective. They will, indeed, be pushed to the lengths necessary for that purpose. If inflationary pressures grow inside the economy, other things may alter, other aspects of policy may have to be adjusted, but the strain will not be placed upon the value of pound sterling." Statement by the Chancellor of the Exchequer at the Twelfth Annual Meeting of the Board of Governors, *Summary of Proceedings*, International Monetary Fund, Washington, D.C., September 1957.

[57] "We think it is a particularly unfortunate feature of the restraints necessarily applied to check inflation in the past that in practice they have slowed investment down more than consumption." See Council on Prices, Productivity and Incomes, *Third Report*, July 1959, p. 32.

[58] It should be borne in mind that the ratio of private consumption to gross national product remains substantially higher than in — for example — Norway, the Netherlands and western Germany despite the decline of that ratio since 1950.

[59] See *Economic Bulletin for Europe*, Vol. 11, No. 3, p. 25.

[60] These figures are the result of a Board of Trade inquiry into investment plans in industry, see *Board of Trade Journal*, 22 January 1960.

In the circumstances peculiar to the British economy, even a co-ordinated and better balanced use of all the policy instruments available to the authorities might not have been sufficient to make possible the simultaneous achievement of all the policy objectives. Thus the problem of preventing wage-cost inflation while maintaining full employment remains intractable, and the need for the elaboration of a wage policy is being increasingly stressed in recent writings.[61] As has been suggested before, an attack on some of the other rigidities of the British economy — designed to encourage *inter alia* fuller exploitation of technical possibilities (at given investment cost) of raising labour productivity and greater flexibility of prices — might well accompany search for more effective means of central economic diagnosis and policy implementation.

France

In France, the priority target during the period of the fifties was clearly the maintenance of a rapid rate of expansion. For this a high level of domestic investment, particularly in the basic industrial sectors, was considered a prerequisite, and housebuilding was also given a high priority. The achievement of the expansion and investment objectives was rendered more difficult by the large claim on resources from military expenditure and from investment in Overseas Territories; and fluctuations in agricultural output — still an important sector of the French economy — presented an additional problem at times. The maintenance of a relatively rapid rate of expansion until 1958, a year when many other countries had for some time been going through a phase of slowing growth or even stagnation, was achieved at the cost of strong price increases and of repeated foreign exchange crises which were temporarily relieved by foreign borrowing.[62]

A large number of budgetary instruments have been available to — and used by — successive French governments both on the revenue and expenditure sides of the accounts; and variations in taxation and expenditure are in fact rendered easier and more expeditious in France than in most other countries by the discretionary powers vested in the government.[63] Apart from the traditional instruments of budgetary policy, an important role was played by public funds and specialized public and semi-public financial institutions in providing investment finance to the rest of the economy (see section 1), and a substantial influence was also exerted on the investment and price policies of the large public-enterprise sector. The instruments used by the government included direct action on price formation in the private sector, by means of price control, and variations in subsidies and indirect taxes; and, through its importance as an employer in both the civil service and public enterprises, it also exerted some influence on the process of wage bargaining. These measures were applied in combination with monetary instruments, the direct manipulation of foreign trade by means of import taxes and export subsidies, two downward adjustments in the exchange rate, and changes in the degree of trade liberalization.

However, the repeated and frequent changes in budgetary policy (reflected in the particularly large variations in central-government budgetary items shown in Chart 1) did not always spring solely, or even primarily, from the changing dictates of the current economic situation. Frequent changes of government brought changes in the priorities accorded to targets of economic policy and, to some extent, also changes in economic reasoning about the workings of the economy.

Policies were broadly devised against the background of long-term and short-term targets established in three successive Modernization Plans; but these were different from the national budgets of some other countries in that they provided a general framework for the orientation of policies rather than specific policy directives in quantitative terms.[64] Short-term policy-making may be said to have suffered until recently not only from a lack of continuity but also from a lack of close co-ordination, both as to direction and timing, between budgetary, monetary and other instruments. As is shown below, a number of circumstances combined at times to make the budget even a contributing factor to domestic and balance-of-payments strains.

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[61] See, for instance, the discussion on " A Policy for Money Incomes; a Survey of Proposals ", Council on Prices, Productivity and Incomes, *op. cit.*, pp. 41-47.

[62] The disparity between French and foreign prices which had begun to develop in 1951 was further accentuated during the 1955-1956 boom. Thus, the annual rate of increase of the price index of gross national product between 1950 and 1956 amounted in France to 7.9 per cent (compound), the corresponding increases in the United Kingdom and western Germany being 4.9 per cent and 3.1 per cent respectively. See the *Economic Survey of Europe in 1958*, Chapter III, Table 5.

[63] See Chapter V, section 3.

[64] The drawing up and implementation of periodic four-year Modernization and Equipment Plans has been an important feature of post-war French economic policies. The Plans, which are prepared by a government agency *(Commissariat général du Plan)* with the assistance of specialized Commissions made up of government officials and representatives of management, labour and other groups, are submitted for recommendation to the Economic Council and for approval to the two chambers of Parliament. As defined by law, the plans are " designed to provide an instrument of orientation ... and the framework for investment programmes ", for the respective four-year periods. Each year, before the discussion of the budget, the High Commissioner (of the *Commissariat général du Plan*) draws up a report indicating the measures taken for implementing the plan, the results attained and difficulties encountered, and the policy adjustments which might be required. This report is drawn up in agreement with the Ministers concerned. The Plans have played an important role in shaping not only investment but also overall economic policies. Their objectives and policy recommendations have been given high priority in most government programmes.

Several phases of policy, each initiated by a different government, serve to illustrate the above generalizations. During the post-Korean boom the public sector did not make a very active contribution to counteracting inflationary developments. In fact, the budget probably even contributed to inflationary pressures in 1951 through the substantial increase in central-government — largely military — outlays. In 1952 some monetary restraints were imposed and imports restricted; but budgetary measures were limited mainly to efforts at price stabilization, such as selective tax exemptions intended to check the rise in prices of certain consumers' goods and the blocking of public-enterprise prices or charges. It was also sought to achieve budget balance through a cut in expenditure. In fact, however, central-government expenditure continued to rise and the budget deficit increased, thus limiting the effect of the deflationary tendencies in the private sector which had begun to make themselves felt in the course of 1952. By the end of 1952 the boom had spent itself; domestic prices were stabilized, largely on account of the fall in world market prices, and a slight improvement in the balance of payments was achieved.

In the policy phase lasting from mid-1953 to the end of 1955 vigorous efforts were made to start off a renewed expansion, and the new course was emphasized in the budget documents and an 18-months' programme which provided the general setting for policy-making. The 1954 budget selected investment as the appropriate sector to set off a renewed expansion and provided for an 11 per cent increase in credits for public and private investment. But there were various obstacles in the way of obtaining a powerful effect on aggregate demand. Public-authority (including public-enterprise) investment was susceptible to government stimulus; but the speeding up of infrastructure investments takes time, as does the launching of new projects, and the actual increase in such public expenditures turned out to be insufficient to provoke a response from the private sector despite the easier credit conditions that had been created. It was therefore considered necessary to make an attack on a wider front. Further measures were devised to stimulate investment,[65] but the emphasis was shifted towards stimulating consumption and exports. The minimum wage was raised and direct taxes on lower incomes were reduced: tax exemptions for some foods and increased subsidies on bread had the twin objectives of raising consumption and keeping prices in check. Export subsidies were also increased.

Together with these stimulating measures such favourable factors as a good harvest in 1954, a substantial rise in export demand, and larger foreign exchange receipts from allied military expenditure and foreign aid, were responsible for the simultaneous achievement in 1955 of a vigorous investment expansion and an improvement in the balance of payments, while price stability was maintained.

But the government which followed in 1956 inherited renascent inflationary pressures, precipitated by unfavourable agricultural developments affecting both the domestic price level and the balance of payments. The government at first chose to continue to support expansion and, in particular, to persevere with the investment effort[66] while taking measures to check price increases directly through 'shock' imports and selective subsidies. However, from mid-1956 onwards and — after the balance-of-payments crisis in May — at an accelerated pace throughout 1957, monetary and budgetary restraints and direct controls were adopted in a manner suggesting rather a succession of stopgaps than a co-ordinated policy. Credit restrictions were tightened repeatedly; in June 1957 the trade liberalization quota was reduced and this, although helpful in the balance-of-payments emergency, only aggravated the long-term problem of the uncompetitiveness of French prices; and both the degree and timing of the devaluation of September 1957 were such that its potential benefits were soon nullified by further wage and price increases.

The budget itself was one of the main factors responsible for domestic and external imbalance in 1956 and 1957, despite several tax increases and efforts to curtail expenditure. The rise in public expenditure resulting from higher military outlays, from earlier investment decisions and from the measures taken to stabilize prices, was further speeded up by the adoption, in 1956, of a generous social welfare programme; and the central government's savings surplus declined from 3.8 per cent of gross national product in 1955 to 2.2 per cent in 1957. The failure of, repeatedly tightened, credit restrictions to work either promptly or sufficiently was partly due to the liquidity effect of the budget deficit — a substantial part of which was financed in 1957 by borrowing from the central bank, whereas in 1956 it could be largely financed through long-term borrowing. But, in addition, the central bank itself contributed to the continued credit expansion by re-discounting medium-term securities held by the banking system in amounts above the re-discount ceiling which had been set.

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[65] The supply of funds for public investment was further increased; and the cost of investment to enterprises, whether from their own resources or from borrowing, was lowered through the suppression of the tax on the production of investment goods and the reduction of the discount rate. The increased liberalization of imports was expected to put pressure on enterprises to invest in order to improve their competitive position.

[66] The volume of gross fixed investment increased by 8 per cent in both 1956 and 1957.

It was only the economic stabilization programme adopted at the end of 1958 [67] which finally mobilized the wide range of policy instruments available to French governments for a simultaneous and co-ordinated attack over a wide front on both the structural and the short-term problems of the French economy. A summary of this programme, and a description of the economic setting in which it was decided, have been given in Chapter II of the *Economic Survey of Europe in 1958*. It is sufficient to recall that its main objectives were to increase aggregate savings by fiscal measures and a return of confidence, to break the automaticity of index-ties for wages and farm incomes, to improve the competitive position of French exports through devaluation, and to reduce distortions in the price structure through reductions of subsidies. The commitments to liberalize imports and to enter into the European Economic Community made it even more urgent than would otherwise have been the case to establish a supportable exchange rate and to check domestic cost and demand inflation. In the sphere of budgetary policy, the aim was to maintain the deficit at its 1958 level through an increase of receipts, since very little could be done to curtail current expenditure and investment financing from public funds had to be further increased in the interests of adapting the French economy to face foreign competition.[68]

It would appear, from an examination of the programme of end-1958 and of subsequent economic developments,[69] that the experiences of the fifties have developed a greater awareness in France both of the possibilities and limitations of the numerous budgetary instruments available and of the need to co-ordinate their use with that of other policy weapons. The progress made in integrating the budget into national accounting is both a reflection and a partial cause of this development.

Belgium

In Belgium, policies are conditioned by a high degree of sensitivity of the economy to fluctuations in foreign demand and to conditions abroad.[70] As a result, the emphasis of policies has been placed since the war on the safeguarding of the competitiveness of Belgian prices and on the protection of the balance of payments, regarded as prerequisites for the longer-term growth of the economy. Fears of jeopardizing these aims have led to great caution in the application of measures susceptible to compensate the effects upon domestic activity of periodic declines in foreign demand, as is shown in a general tendency for expansionary measures to be hesitant, at least in the early stages, and a contrasting promptness in checking increases in prices, incomes, or domestic demand considered to threaten the balance of payments.

Although major responsibility for such policies has traditionally been vested in the central bank, and the variations in monetary policy have provided the setting for — and occasionally the corrective to — the operations of the public sector, the rôle played by the government and the public-enterprise sectors has also been considerable, and greater than may be suggested by the small size of the public sector as shown in sections 1 and 2 of Chapter V. The action of the public sector on the economy has not primarily taken the form of changes in tax revenues — which have been small in terms of gross national product — but almost exclusively of changes in public outlays, particularly for investment, and in tax privileges which, at a very small cost in budgetary terms, had a definite influence on private investment expenditures. In addition to its influence over investment expenditure by public enterprises, the government also influences considerably the volume of dwelling construction.[71] The importance of the role played by public credit institutions in the financing of the private sector, referred to in section 1, gives the authorities further means of influencing the growth and the pattern of industrial investment; and this tool has been used actively during the period to support monetary and budgetary policies. This instrument has been in an intermediary position — as regards its flexibility — between monetary policy, which has been invariably quick to respond to changing conditions, and fiscal and budgetary policy, which has on the whole been considerably slower in operation.

The timing of the measures taken in Belgium follows partly from a generally cautious approach to policy changes, but is closely related to the peculiarities of the country's international position. The Belgian economy is among the first in western Europe to feel the depressive effects of any levelling-off of foreign demand, but responds with considerable delay to rising activity abroad. Whereas, for balance-of-payments reasons, the monetary authorities have been prompt to react to any change in the general economic outlook, the public sector has reacted with variable lags. Decisions to slow down the rate of public and publicly financed expenditure have generally been taken at relatively early stages of an upturn, but decisions to counteract a downturn have been delayed so as to lead to significant results only after foreign demand and the expectations of the domestic private sector (strengthened by the announcement of increases in the rate of public expenditure) have begun to improve. Naturally the timing of the measures has been of less importance in Belgium, with its concern chiefly centring around price stability and the protection of the balance of payments, than in countries where the pursuit of a rapid rate of growth has at most times implied considerably narrower national and international margins.

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[67] See *Rapport sur la situation financière, présenté à Monsieur le Ministre des Finances et des Affaires économiques en exécution de sa décision du 30 septembre 1958*, Paris 1958.

[68] Receipts were to be raised through the suppression of certain fiscal exemptions and increases in both direct and indirect taxation. Certain subsidies were to be reduced or abolished and public enterprises were to be made self-supporting through the raising of tariffs and a corresponding cut in subsidies.

[69] See the *Bulletin*, Vol. 11, No. 3.

[70] The implications of the international position of Belgium were discussed in the SURVEY for 1958, Chapter III, pp. 28 and 29.

[71] As was shown in section 4 of Chapter V, government control over public enterprises is very close. In Belgium, public enterprises are all of a public-utility nature and, although there may be technical obstacles to rapid short-term variations in the rate of their investment expenditure, the economic obstacles are negligible. Table 1 of Chapter V indicated that investment by public enterprises amounted to half the total investment by the public sector. Dwelling construction is about as large as total public-sector investment.

At the time of the Korean boom, which reached its peak in the second quarter of 1951, public investment was sharply curtailed as early as the latter part of 1950; and in the second quarter of 1951 government subsidies to dwelling construction were substantially reduced.[72] The importance of these cuts, together with the other restrictive measures taken at the time and the fact that defence expenditure did not expand as rapidly as had been expected, seems to have contributed to lengthening and deepening the following recession. In 1956-1957 public investment policy was similar. The peak of the boom was reached in the second quarter of that year, but public investment expenditure had been made to level off (in relation to gross national product) in 1956 and contracted somewhat in 1957. Dwelling construction, however, proved less easily amenable to restriction, despite the reduction in building authorizations and in subsidies, and the rate of completions did not level off until 1958.[73]

The influence of budgetary measures in assisting the 1953-1954 revival was relatively modest — although a number of fiscal measures were taken as early as 1952 and dwelling construction, encouraged by the central government, played a comparatively significant role. The course of the 1958 recession and of the subsequent revival was on the other hand far more decisively influenced by the public sector, though the increase of total government expenditure in 1958 and 1959 was entirely caused by the growth of current transfers to the private sector.

The decision to expand public expenditure, particularly investment, was taken as early as the end of 1957 but, owing to the usual time-lags, the increase in orders from the government and the public enterprises did not raise the volume of actual expenditure until the beginning of 1959.[74] It is interesting to note that investment by the public enterprises was quicker to react than general-government investment. Dwelling construction, which had declined somewhat in 1958 and 1959, should stage a large revival in 1960 in view of the subsidies and building authorizations granted in 1959 and of the volume of subsidies budgeted for in 1960. The full impact of public policy is therefore likely to reinforce, in 1960, the effects upon the economy of the recovery of industrial investment. The fact that, despite the delay in raising the level of public investment, the 1958 recession — though sharp — proved relatively short-lived was largely due to the revival of foreign demand and to the strength of domestic private consumption. The latter had, however, benefited in 1958 and 1959 from the stabilizing effect upon personal disposable incomes of the automatic rise of certain income transfers and of increases in various social benefits.

Fiscal measures taken during the period of the fifties served a variety of purposes. Cuts in indirect taxes, sometimes taking the form of the temporary suspension of customs duties on certain products in short supply, were used on various occasions to check or delay increases in prices and wages. In combination with other measures, they have also been used to alleviate balance-of-payments strains, as in 1952 when the turnover tax was temporarily suppressed on exports payable in dollars. This was part of a set of measures taken in 1951 and in 1952 to correct the imbalance of international payments caused by the expansion of exports payable in EPU currencies and the corresponding growth of imports from the dollar area. A special profit tax was introduced in the third quarter of 1952 and repeated early in 1957, on both occasions primarily as part of a set of decisions intended to prevent large-scale increases in wages and salaries.

From the point of view of counter-cyclical policy, the timing of these profit taxes was not, of course, very fortunate, since they were imposed in situations where stimulating measures would rather have been called for. On other occasions it seems that fiscal measures were taken rather late: thus the introduction in the second quarter of 1951 of a system of anticipated tax payments coincided with the peak of the Korean boom and was partly intended to meet the normal cyclical strain on the treasury (repeated in the fall of 1957) and the prospective expansion of defence expenditure. Fiscal alleviations and incentives, intended to stimulate industrial investment, were introduced in the middle of 1952, that is, over a year after the post-Korean downward turning-point had been passed, and one year after the national bank had first reduced its discount rate; further measures of the same type were taken later in 1952 and in 1953 and 1954. Similarly, the more extensive and discriminating fiscal measures of assistance to investment introduced in the middle of 1959, but which had already been announced in 1958 as a means of touching off a revival of domestic activity, came six months or so after the revival itself had started.[75]

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[72] Investment by the public sector as a whole declined by nearly 1 per cent and dwelling construction by 1.5 per cent of gross national product from 1950 to 1951.

[73] The preparation of the 1958 World Fair was an additional motive for keeping public investment in check in 1956 and 1957.

[74] The first signs of a revival of foreign demand with the ensuing improvement in expectations had been apparent in the last quarter of 1958.

If the policy achievements are judged in the light of the overriding goal of price stability and balance-of-payments equilibrium, the policies pursued have been successful. If, on the other hand, forgone growth and output — which are of primary relevance to the longer-term competitiveness of exports and for material welfare — are taken into account, the success becomes more questionable. The short-term emphasis on price stability may be a necessary condition — but is certainly not a sufficient condition — for the simultaneous attainment of the goals of competitiveness, growth and a high level of utilization of resources. Some of the pre-conditions for a successful pursuit of a more ambitious and complex blend of policy goals have recently been met by the latest developments of fiscal and budgetary practices and by the legal sanction given to improved financial institutions and budgetary rules (see section 3 of Chapter V). Recognition of the fundamental need for better information and for more accurate policy making and implementation has led to the establishment at the end of 1959 of an economic programming office and, in 1960, to the decision to create an economic development commission.

3. Conclusions

The focus of this and the foregoing chapter has been on the impact of the public sector on short-term fluctuations in employment, production and prices. But the traditional, and often also the primary, objectives of budgetary and public-enterprise operations are to be found in different fields: the provision for collective needs; the promotion of long-term economic growth; and the influence exerted on income distribution.

Hence the question arises whether public sector operations can be made — without neglecting those primary aims — to contribute also to short-term economic stabilization. The answer, as suggested by the findings of this study, is clearly in the affirmative: the structure of government income and expenditure is such as to exercise automatically a certain stabilizing influence on economic activity and — more important — the public sector is so large in all countries that quite moderate changes in its operations can normally suffice to steer the economy in the direction desired.

However, as the experiences of a number of countries during the fifties have shown, there is no ready-made formula, such as the maintenance of a permanent budget balance, which will guarantee stable growth in all situations and settings. Economies are confronted with different basic problems and are subject to a variety of short-term disturbances; targets in different countries have been more or less ambitious and set in differing orders of priority; and each economy reacts somewhat differently to a specific policy action. A large array of policy instruments is called for and they require skilful handling with regard to timing, dosage and co-ordination — both national and international — to fit varying situations.

With the virtual dismantling of direct controls of domestic economic activity and foreign trade and payments, the whole burden of adjustment must now be placed on monetary and public sector instruments. However, monetary and budgetary policies are not substitutes for each other—they operate differently and their impact largely falls on different sectors of demand. Moreover, although monetary policy can be changed more rapidly, budgetary instruments, once adopted, normally work with greater speed and provide greater scope for selective action. One of the lessons learnt from the experiences of the fifties is that the various but concurrent objectives of economic policy will require for their achievement greater selectivity than heretofore in the choice of measures so as to counteract short-term strains with due regard to their origin.[76] Budgetary policy has an important role to play, and the need to perfect its functioning is evident.

Whereas some countries have succeeded in the post-war period in making relatively effective use of budgetary instruments in the pursuit of short-run policy aims, others have done much less well; and in most of them there is room for improvements. These improvements are required in four major spheres: better economic intelligence, a clear formulation of policy aims, better use and refinement of policy instruments, and a closer co-ordination of budgetary and other policy measures.

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[75] The fiscal measures to stimulate industrial investment taken in 1952-1954 and in 1959 imply sometimes tax alleviations, sometimes interest rates lower than the normal market rates, and sometimes a combination of both. Since 1949 the government also subsidizes in periods of low activity local authorities engaging in public work expenditure in order directly to relieve local unemployment.

[76] See the SURVEY for 1958, Chapter II, pp. 40-42.

A basic prerequisite for a successful policy — budgetary or other — is an adequate understanding of the working of the economy: of the way in which outside disturbances affect it and of the results to be expected from alternative policy measures. Information should be assembled, as far as possible, in quantitative terms — since this is essential for an appropriate dosage of measures to be determined — and it should include estimates of the time-lags occurring before the various possible measures of policy have their effect. Absolute precision of prediction of the effects of such measures cannot be expected, but it would be reasonable to aim at a great deal more than is at present achieved.

Similarly, it is important for the policy-maker to discover at the earliest possible stage any threat to the smooth functioning of the economy, not only by identifying the disturbance but also by tracing it back to its root cause in order to prescribe the correct curative treatment. This calls for the most up-to-date statistics and forward-looking economic indicators being made available, and for periodic and frequent confrontations of current economic trends with anticipated or planned economic developments.

The second prerequisite for successful policy-making is to have a clear idea of the aims that policy is intended to achieve — not only in overall terms but in terms of specific priorities. No two measures have identical effects: only when targets are explicitly stated (and the effects of particular instruments rightly assessed) can the appropriate choice of measures be made.

Regarding the budget as a major instrument of policy, there is scope on a purely technical level for improvements in budget presentation in some countries. Traditional budget layouts are unsatisfactory, in that they allow no easy assessment of the impact which the budget is likely to have — or has had in the past — on the economy; and sometimes they are even based on principles which make the budget document misleading rather than helpful as a guide to policy formulation. Improvements (already under way in some countries) are required in several directions: by including in the budget additional transactions of central — or centrally controlled — authorities which, for various reasons, have so far been kept outside it; by supplementing the traditional administrative classifications of receipts and expenditures by others which are economically more meaningful; and by replacing often irrelevant concepts of budget surpluses or deficits by those based on national accounting principles.

Another prerequisite for a more effective use of budgetary policy is a shortening of the time-lags between budget formulation and implementation, so as to permit rapid action to follow changes in the economic situation. While some countries have achieved this by vesting more power in the executive, a method more acceptable to a parliamentary democracy might be to speed up the process both of preparation of the budget proposal and of parliamentary approval. However, it is improbable that a great deal can be accomplished in this way, on account of the time involved in budgeting for expenditures in individual ministries and other spending units and in co-ordinating and adjusting these proposals in the finance ministries or budget offices. A solution to this problem must chiefly be sought, therefore, in the introduction of last-minute revisions to the budget before the final vote is taken, and in making supplementary budgets — permitting changes in individual items in the course of the normal budget years — a normal, rather than an emergency, practice.

Even if such institutional improvements are made, the scope for a successful counter-cyclical policy will depend ultimately on the range of budgetary instruments available. Flexibility and selectivity are essential, but the possibilities of manipulation vary considerably, as has been shown, between different categories of receipts and expenditures: they are relatively limited for most forms of expenditure on goods and services, and generally greater for capital transfers and state lending than for current transfers and taxes. There is scope for improvements, however, by holding in readiness long-term investment programmes — for central and local government authorities and public utilities — which are designed to be speeded up or slowed down as the general economic situation requires; by timing social welfare programmes and such cuts in taxation as have been decided upon on other grounds so far as possible to meet the requirements of short-term economic policy; by ensuring that the armoury includes some taxes and/or government transfer payments which can be changed at short notice; by endeavouring to create an understanding which will make upward changes of taxes acceptable when called for; and by gearing the lending activities of the state — whether through the budget or through specialized public funds or financial institutions — to overall policy objectives.

Finally, even the best use of budgetary policy would be partly or wholly ineffective if not properly co-ordinated with other policy instruments. Active co-ordination, particularly of budgetary and monetary instruments, calls in most countries for closer central-bank and treasury co-operation in the establishment of policy targets and in the elaboration and execution of policy measures. Joint action will be greatly facilitated if an overall framework for policy-making is provided in the form of a national budget or economic survey setting out clearly the interrelationship between economic variables, targets and instruments.

An essential condition for all the improvements suggested above is that clear information on the issues involved is disseminated as widely as possible so that the public, and those exerting a direct or indirect influence on policy-making in particular, are made increasingly aware of the possibilities and requirements — sometimes apparently involving temporary sacrifices — for solving the policy problems which present themselves.

PART IV

DEVELOPMENT PROBLEMS IN SOUTHERN EUROPE AND IRELAND

Chapter VII

CAPITAL FORMATION AND ECONOMIC GROWTH

On the periphery of western Europe there is a group of countries which until the end of the second world war had been largely unaffected by the main currents of industrial growth in the past century. It includes Turkey, Greece, Yugoslavia, Spain, Portugal and Ireland. In these countries from 50 per cent to 70 per cent of the population still depends on agriculture for a livelihood; and no more than 10-15 per cent of the labour force is employed in factories. The level of per capita income and the structure of output are similar in the southern part of Italy (in contrast to the north) — another area that has been bypassed in the tide of western European industrialization. Southern Italy therefore also forms part of the region, in which about 110 million people, or one-third of the population of western Europe, live. The southern European countries once enjoyed comparative wealth; but today, with per capita gross national product in the range of $200 to $300, their income level is not much more than one-fifth of that in other OEEC countries.[1] These low levels are not far removed from those that prevailed in the 1870s in most of the now industrially developed countries of western Europe (with the exception of Great Britain and France). Since the disparity in the annual per capita rates of economic growth in the two areas was quite small during western Europe's period of relative stagnation from 1913 to 1948, the present gap is largely a consequence of the much higher rates of growth of the industrial countries during the four decades preceding the first world war.

In spite of fluctuations due to wars and depressions, per capita real income in the majority of industrial countries increased on average by about 2 per cent a year — that is, rose nearly fivefold in the whole period 1875 to 1958. As a result, the legacy of poverty and squalor was swept away — except for a minority of the population and some depressed areas — in most industrial countries of western Europe. But this momentous transformation has not as yet been accomplished in the peripheral countries, where the rate of growth of real income per head probably did not reach even 1 per cent a year. The present disparity in standards of living is therefore mainly the consequence of a difference of one to two percentage points in the rates of annual growth of real income per head during the last two or three generations.[2] This suggests that if the per capita rate of growth in these countries could be held at some 2 to 3 percentage points above that in the industrial western European countries, in the course of the next 30 to 40 years, the present gap between income levels in the two areas could be narrowed significantly.

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[1] Per capita income in Ireland is roughly twice as high as in the countries of southern Europe, but still only about one-half of that of the industrial countries of western Europe. Though climatically Ireland resembles more the countries of north-western Europe, it is closer to those of southern Europe in economic structure and in its lack of industrial development. In particular, as in those countries, agriculture predominates in employment, output and exports, and under-employment and unemployment are only partly offset by emigration.

In one important respect, however, Ireland is in a rather special position because of its geographical proximity to, and close economic ties with, the United Kingdom. There is no restriction on the movement of labour between Ireland and Great Britain, and consequently movements of Irish industrial wage rates (and of domestic costs in general) are not easily insulated from those in Great Britain. Capital also flows freely between Ireland and the United Kingdom and there are very close ties between the two banking systems.

[2] It seems improbable that in earlier periods of history disparities in income between countries amounted to more than 50 or 100 per cent. The annual rate of growth of per capita real income must have been substantially below 1 per cent a year, for even at this relatively slow pace, real income could expand some 50 times in four centuries. See J. M. Keynes, " Economic Possibilities for our Grandchildren " in *Essays in Persuasion*, Macmillan, London 1931, p. 360.

These disparities in the rates of growth between the industrial countries of western Europe and its outer fringe persisted at a time when economic dormancy or slow development was complacently accepted. But in the countries of southern Europe and Ireland there is a growing determination to emerge from stagnation. More than ever before, national governments are undertaking programmes of long-term development, often with the aid of outside economic advice. At the same time, the responsibility of the industrial countries of the world for fostering the development of the less industrialized and for reducing inequalities between nations — not only by direct technical and economic assistance, but also through their commercial policies — is increasingly acknowledged. There is thus a continuing need for a study of the progress already attained and of the problems and perspectives for the future. In the *Economic Survey of Europe in 1953* the secretariat analysed the economic position of the southern European countries. More recently the Food and Agriculture Organization of the United Nations has published a study dealing with the economic development of the Mediterranean region as a whole, with special emphasis on agriculture and forestry.[3]

The present study reviews the nature and extent of economic growth in southern Europe and Ireland during the last two decades and attempts to assess the experience of the past as a pointer to the problems and probabilities of further development: the first chapter provides a summary of major economic changes since the war and a more detailed analysis of developments in agriculture and industry, as well as reviewing patterns of capital formation; and in Chapter VIII an attempt is made to analyse the problems of external and internal balance in the context of economic growth.

1. Major Economic Changes since the War

The last decade has witnessed an important departure from former trends in the countries of southern Europe; in Ireland this has been less pronounced. Between 1950 and 1957 the per capita gross national product of this group of countries (including southern Italy) grew by about 40 per cent in volume, or at an annual rate of 4.9 per cent. This bears comparison with the corresponding expansion by some 30 per cent in the other OEEC countries — an annual rate of 3.9 per cent. As shown in Chart 1, the growth of these economies was neither uninterrupted nor identical for all the countries in the group. It was relatively faster in Greece and southern Italy, where it represented in part a delayed recovery to pre-war levels, in Turkey, Spain and (in the past five years) Yugoslavia; but in Ireland and Portugal, where the pre-war level of output had already been surpassed by far in 1950, the rate of expansion in later years was somewhat lower. (See Table 1.)

In all these countries agricultural output rose much more slowly than industrial output — at an annual rate of some 3 per cent, against nearly 9 per cent for industry. Owing to adverse weather, crop production — the largest and the most expansive sector of agriculture — fell drastically in some years (in Turkey in 1955 and 1956 and especially 1954, in Spain in 1953, and in Yugoslavia in the even years since 1950), often seriously hampering the general upward movement of the economies. The rise in industrial output was rapid in Spain, Turkey, Yugoslavia and probably southern Italy, which account for 80 per cent of the population in this group. In the smaller countries (Greece, Ireland and Portugal), whose economies are more closely geared through their external trade to the international market, the pace of growth was more closely related to economic movements in western Europe — though with some differences in timing: growth was faster up to 1952, a slight setback ensued in 1952 or 1953, followed by resumed expansion between 1953 and 1957, and a subsequently slower rate of growth since 1958. Of the larger countries in the group, the pace and pattern of development in Turkey and Spain led to internal inflation and serious balance-of-payments difficulties and to the adoption of stabilization programmes which imply at least a temporary stay to further expansion.

Changes in Per Capita Product

The high annual rate of growth in the last eight years in most of the countries of southern Europe is in part simply a reflection of the very low levels to which per capita output had fallen in the immediate post-war years. As is shown in Chart 2, per capita income had by 1950 already risen by one-tenth above the 1938 level in the major industrial countries of western Europe; whereas for the group of less industrialized countries it was still one-tenth below. In the 20-year period since the outbreak of the last war income per head rose by 45 per cent in the former and by only 29 per cent in the latter, corresponding to an annual rate of 2 and 1 per cent respectively — rates which appear to conform to the long-term trend for each of the areas. As a result, and with the exception of Yugoslavia, the disparities in income between the more industrial and less industrial countries have continued to widen rather than to narrow; and income

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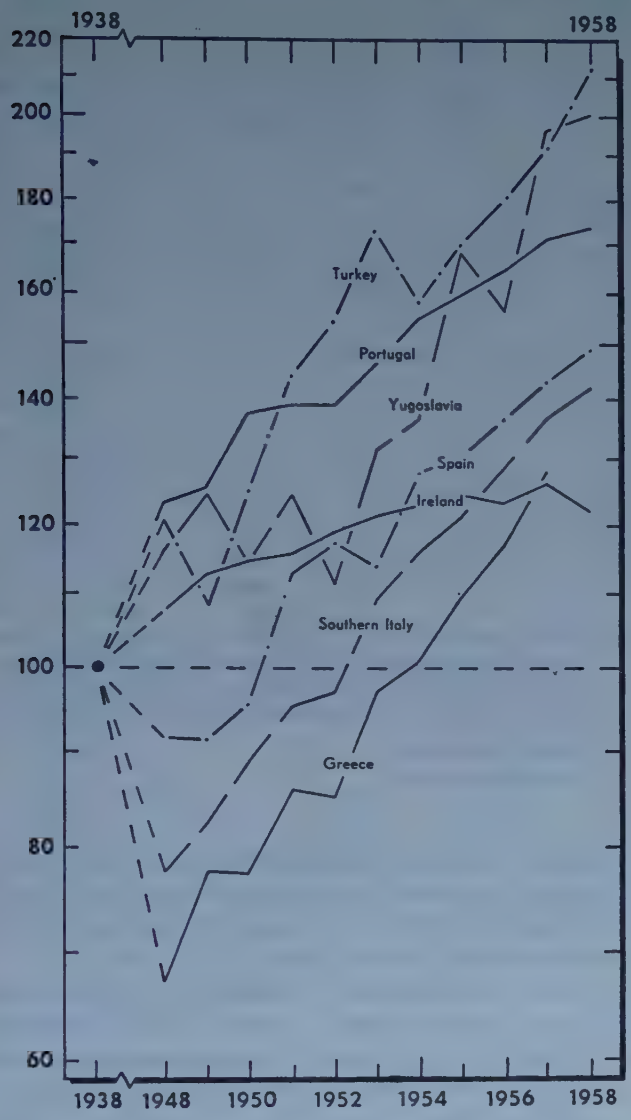
[3] FAO, *Mediterranean Development Project: The Integrated Development of Mediterranean Agriculture and Forestry in Relation to Economic Growth,* Rome 1959.

CHART 1

Volume of gross national product,[a] 1938 and 1948 to 1958

Index numbers, 1938 = 100,[a] semi-logarithmic scale



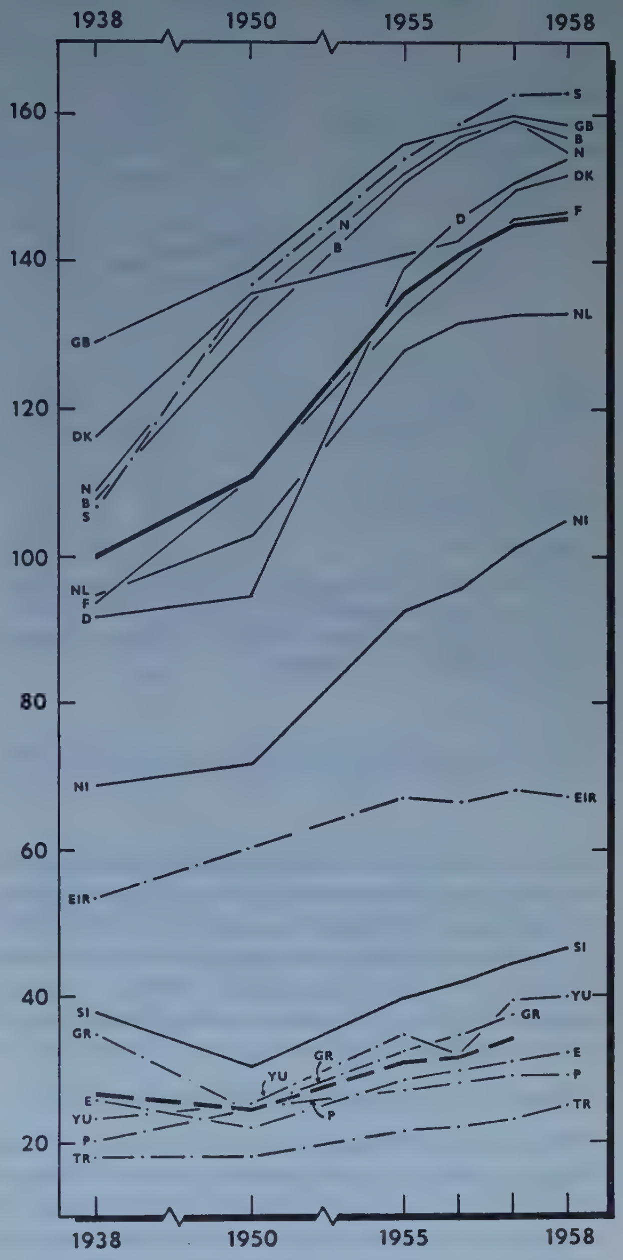
Sources : OEEC, *Statistical Bulletins - General Statistics*; and national statistics.

[a] Spain: national income (1935 = 100); Yugoslavia: gross material product (1939 = 100).

CHART 2

Per capita real gross national product, 1938,[a] 1950 and 1955 to 1958

Average per capita value of gross national product in 1955 in countries shown = 100



B	Belgium	GB	United Kingdom	P	Portugal
D	Western Germany	GR	Greece	S	Sweden
DK	Denmark	NI	Northern Italy	TR	Turkey
E	Spain	SI	Southern Italy	YU	Yugoslavia
EIR	Ireland	N	Norway		
F	France	NL	Netherlands		

— —	Weighted average of southern European countries and Ireland (including southern Italy).
━━	Weighted average of other western European countries.
——	Based on 1955 dollars at European relative price weights.
— · —	Based on 1955 prices at official exchange rates.

Sources and methods : See Appendix B.

[a] Except for western Germany (1936), Spain (1935), Sweden (1938/39) Yugoslavia (1939).

per head in the less industrialized countries of western Europe (excluding Yugoslavia) had fallen from about 28 per cent of that in the industrial countries in 1938 to slightly below one-fourth in 1957. Although there has been a reversal of this tendency in the last ten years, it has not been enough to restore even the pre-war relative position.

In this respect, the broad trends in western Europe since prior to the last war have resembled those experienced in the world at large — despite the closer economic ties within the area. But among the major

TABLE 1

Selected economic indicators for southern Europe and Ireland

Annual compound rates of growth in percentages

	Greece		Ireland		Southern Italy		Portugal		Spain		Turkey		Yugoslavia		TOTAL OEEC	
	1928-1958	1951-1958	1936-1957	1951-1957	1936-1957	1951-1957	1930-1957	1950-1957	1930-1957	1950-1957	1935-1955	1950-1955	1931-1957	1953-1957	1938-1958	1950-1958
Total population	0.9	1.0	−0.1	−0.4	1.0	1.0	1.0	0.8	0.8	0.7	2.0	2.9	0.8	1.4	0.8	0.9
Population of working age	1.1	1.3	−0.4	−0.9	1.3[a]	..	1.1	0.9	0.9	0.6	2.2	2.3	1.0	1.4	..	0.7*
Active population	0.9	1.1	−0.5	−0.9	0.8	0.8*	1.2	0.9	1.1	1.2	2.7	2.1	1.0	1.7	..	..
of which:																
In agriculture	0.3	—	−1.7	−2.1	0.1*	−1.3*	0.7*	0.7*	0.8	−0.4	2.6	1.4	−0.1	−0.4	..	..
In industry	1.1	1.9	1.2	0.3	1.7*	2.7*	1.9*	1.1*	1.5	2.8	2.9	4.9	3.3	4.9	..	..
In other sectors	1.7	2.4	−0.1	−0.4	1.5*	3.8*	1.6*	1.1*	1.1	2.4	3.4	5.7			..	..
	1938-1957	1948-1957	1938-1958	1948-1958	1950-1957		1938-1958	1952-1958	1931-1957	1950-1957	1938-1957	1948-1957	1939-1959	1948-1959	1938-1958	1948-1958
Volume of:																
Gross national product	1.2	7.3	1.0	1.3	5.9		2.9	3.8	..	5.9[b]	3.5	5.3	4.4	6.9	2.4	5.0
Private consumption	..	6.1	1.0	0.9	..		2.9	4.3	..	..	..	..	..	6.2	2.1	4.1
Public consumption	..	2.6	1.3	2.3	..		2.9	5.5	..	..	..	..	..	11.6	2.2	4.1
Gross domestic capital formation	..	11.5	1.1	−0.4	..		..	2.2	..	..	..	..	..	..	3.5	6.6
of which:																
Gross fixed capital formation	..	8.4	1.1	1.4	11.2		3.6	6.7	..	10.8	..	13.2[c]	..	8.1	3.8	6.8
Total commodity output[d]	3.0	9.1	2.2	4.2	..		..	..	2.2	6.9	4.2	6.5	5.8	7.9	..	..
of which:																
Agriculture	1.8	6.3	0.6	3.1	3.6		1.7	2.1	—	2.5	2.5	4.4	1.7	3.4	1.3	4.5
Industry	4.1	12.4	3.4[e]	4.6[e]	..		..	..	3.8	9.7	6.4	8.0	7.1	9.1	3.6[e]	7.6[e]
Exports of goods and services	1.9	14.2	1.6	1.8	..		3.3	5.5	..	1.0[f]	1.1	3.2	..	5.8[f]	3.4	9.7
Imports of goods and services	3.2	5.5	1.7	0.8	..		3.8	6.2	..	−8.4[f]	3.3	6.3	..	6.8[f]	2.9	7.4

Sources and methods: See Appendix B.

[a] 1936-1951.

[b] National income.

[c] 1948-1955.

[d] For agriculture, the periods covered correspond to those shown in Table 4 with the following exceptions: *Spain:* 1931-1935 to 1955/56-1956/57 and 1949/50-1950/51 to 1955/56-1956/57. *Yugoslavia:* average of calendar years 1948 and 1949 to average of 1958 and 1959. Other countries: the post-war period is 1947/48-1948/49 to 1956/57-1957/58. Total commodity output is the weighted average of agricultural and industrial output. For further details see Appendix B.

[e] 1938-1957 and 1948-1957.

[f] Commodity trade only.

industrial countries of western Europe differences in rates of growth have narrowed the margin between the highest and the lowest income levels.[4] Viewed in this perspective, both the widening of the gap between southern and industrial western Europe and the recent slackening in the pace of growth in some of the less industrialized countries give rise to concern.

Changes in the Structure of Output and Employment

The structure of employment and output has been affected by the changes in absolute numbers of population and by the divergent rates of growth of industrial and agricultural production (see Table 2 and Appendix Table XXIII). The rate of population growth in most southern European countries — about 1 per cent a year — is lower than that in other industrially less-developed countries, except in Turkey, where it exceeds 2 per cent. But the absolute rise in the population has been limited by emigration — particularly from Ireland, but also from Greece, Portugal and southern Italy:[5] emigration is estimated to have absorbed between one-third and one-fourth of the natural population increase in Greece and Portugal, and nearly one-half (including emigration to the north) in southern Italy in recent years.[6]

Only in Ireland and Yugoslavia have emigration or the non-agricultural sectors of the economy absorbed the total natural increase since before the war in the labour force: in other countries the absolute numbers engaged in agriculture have increased. Since 1950, however, the agricultural population has everywhere declined in absolute terms — except in Portugal and Turkey; it now accounts for 45-50 per cent of the total in Greece, southern Italy and Spain, rather less in Ireland, and considerably more in Turkey and Yugoslavia (see Table 2).[7]

This large proportion of the labour force employed in agriculture is in stark contrast with the position in the industrial countries of western Europe, where the proportion is below 20 per cent and falling. In con-

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[4] See *Economic Survey of Europe in 1958*, Chapter V, p. 5.

[5] For a discussion of the economic problems posed by large-scale emigration see *Economic Survey of Europe in 1953*, p. 193 *et seq.*

[6] The natural rate of growth of population in Ireland is 1 per cent per annum, but owing to emigration there is a slight annual decline in total population.

[7] In these two countries the percentages are influenced by the high proportion of women treated statistically as engaged in agriculture (see the note to the table).

TABLE 2

Structural characteristics of the economies of southern Europe and Ireland

	Greece	Ireland	Southern Italy	Portugal	Spain	Turkey	Yugoslavia	Total OEEC countries
				Millions				
Population in 1958 (mid-year)	8.2	2.9	19.0	9.0	29.7	25.9	18.2	291.9
				As percentage of total				
Employment:	*1958* [a]	*1957*	*1957*	*1957*	*1957*	*1955*	*1958*	*1955*
Agriculture	45	37	48	48	44	81	58	..
Industry	23	26	26	25	29	9	42	..
Other	32	37	26	27	27	10		..
Output:								
Agriculture	34	29	33	28	26	41	25	13
Industry	26	28	39	38	33	20	49	46
Other	40	43	28	34	41	39	26	41
Production per man: [b]								
Agriculture	75	80	67	59	59	51	43	..
Industry	113	106	155	149	116	210	286 *	..
Other	126	115	107	127	151	..	200 *	..
				As percentage of gross national product				
	1957	*1958*	*1957*	*1958*	*1956*	*1957*	*1957*	*1958*
Private consumption	75	76	..	80	74	77 [d]	52 [c]	65
Food	43	28	..	37	21	..	26	23
Clothing	9	9	..	..	8	..	9	8
Rent	5	3	..	6	2	..	1	5
Durables	2		..	..	4	..	2	5
Other	16	36	..	..	39	..	14	24
Public consumption	13.4	12.7	..	11.3	10.4	11.0	13.0 [c]	14.2
Military	5.6	1.0	..	3.4	..	3.2	..	4.6
Civil	7.8	11.7	..	7.9	..	7.8	..	9.6
Gross domestic capital formation	18.6	13.2	25.7	14.7	17.6	12.3 [d]	25.1	19.9
Public	5.1	1.6 [e]	13.6	2.1 [e]	2.9	..	..	..
Private	13.5	10.7 [e]	12.1	15.2 [e]	14.7	..	..	..
Commodity exports: Total	8.0	21.6	..	13.9	3.6	3.2	6.0 [c]	..
Agricultural products	6.8	16.0	..	6.2	..	2.8	2.9	..
Commodity imports: Total	19.1	34.1	..	23.2	6.3	3.6	10.0 [c]	..
Manufactured goods	9.3	19.6	..	11.1	..	2.1	4.3	..
Raw materials	6.2	6.7	..	9.5	..	1.0	3.2	..
Gross domestic saving	11.7	11.0	..	8.8	15.0	12.0 [d]	22.4	..
Import surplus	6.9	2.2	..	5.9	2.6	0.3	2.7	−1.4

Sources and methods : See Appendix B.

NOTE. — Owing to the differences in the methods of classifying women active in agriculture, their share in total active agricultural population is as high as 55 per cent in Turkey and 40 per cent in Yugoslavia. See also Appendix B.

[a] 1957 for output and production per man.

[b] Output per man in each sector, with the average for all sectors taken as 100.

[c] Percentage of gross material product.

[d] Change in stocks included in private consumption.

[e] 1957.

sequence, there has been relatively little increase in the productivity of the agricultural labour force in southern Europe and a considerable degree of under-employment persists.[8]

The expansion since pre-war of industrial output (including mining, building and public utilities) has generally been two to three times higher than the growth of employment. As a result, the change in the structure of output in the economy has been greater than in the structure of employment. The industrial labour force, including those employed in construction, as a share of the total labour force is now 20-25 per cent in most countries (but only 10 per cent in

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[8] Under-employment in agriculture is estimated to be currently about 30 per cent of the labour force in Turkey, 35 per cent in Greece, 45 per cent in Spain, 55 per cent in Portugal and as much as 65 per cent in southern Italy (see FAO, *Mediterranean Development Project*, Table A/III). In Ireland it is about 30 per cent—cf. *Economic Development* (Pr. 4803), Dublin 1958.

Turkey), which contrasts with 40-50 per cent in the industrial countries of western Europe.[9]

During the twenty years prior to 1957 or 1958 the growth of the industrial labour force was proportionally greatest in Yugoslavia (where it absorbed one-half of the total increase in employment), and smallest in Greece and Turkey. In Greece more than one-half of the addition to the labour force was absorbed by the non-commodity sector (i.e. services); in Portugal and Spain, the comparable proportion was around one-third and in Turkey one-tenth. Except in Turkey and Yugoslavia the active population in the services sector now accounts for about the same share of total active population as in the industrially developed countries of western Europe.

Relatively large numbers in agriculture and small numbers in industry are the characteristics of southern Europe and Ireland that radically differentiate them from the industrial countries of western Europe; the combined proportion of agricultural and industrial employment is in both groups of countries about two-thirds of total employment — with the remainder engaged in services. Like agriculture, the services sector in southern Europe and Ireland has a considerable degree of unemployment and under-employment. Hence the major shift in the employment pattern should be parallel to that which earlier took place in the industrial countries — from low-productivity agriculture and small-scale industry to larger-scale modern industry with its higher output per worker.

For some years to come, a central problem for these countries will therefore be to absorb at least the whole of the increase in the active population into non-agricultural occupations, so that productivity per active worker in agriculture may rise. The accomplishment of this objective would require an annual increase in the non-agricultural labour force of about 2 per cent in most countries, most of the increase going to industry, since the services sector also suffers from under-employment. This would mean in most countries no more than the maintenance of the rate that has prevailed in the last eight years, partly owing to special factors. With vigorous policies of economic expansion, absolute numbers in agriculture could continue to be reduced, as has happened in nearly all these countries in recent years, and as is, indeed, the declared aim of most of them.[10]

The Pattern of Expenditure

In most of the less industrialized countries of western Europe private consumption accounts for a higher share of total expenditure than in the industrial countries — nearly 75 per cent, as opposed to some 65 per cent. The share of food in private consumption expenditure is higher than in industrial western European countries and appears to differ only slightly from what it was before the war. Apart from fruit and vegetables and industrial crops, the expansion of agricultural output in recent years has been limited for the most part to cereals (principally wheat), of which output per head in southern Europe is now about 15 per cent higher than in industrial western Europe; per capita consumption of fruit and vegetables, in which southern European countries enjoy a climatic advantage, is from one-and-a-half to three times higher. It is thus especially for animal products that food consumption levels in southern Europe are lower (by about two-thirds) than in the industrial countries.[11] The gap between levels of consumption of industrial products is even wider — and supplies of consumers' durable goods in southern Europe are only one-tenth or one-twentieth of those in the industrial countries.

The share of gross fixed capital formation in national product is now about one-seventh in most of the countries under review — having risen since pre-war; in the industrial countries of western Europe it is one-fifth or more. On a per capita basis, the volume of gross fixed investment in the industrial countries is over six times that in southern Europe. Only in Yugoslavia,[12] where there has been a determined investment drive, and in southern Italy, where the policy introduced in 1950 has been sustained by a capital inflow from the north, is the share of gross fixed capital formation higher than 25 per cent of the gross national product.[13]

The rise in gross capital formation has called for a corresponding increase in the means of its financing. This has been partly met either from higher saving by the personal or corporate sector (as in Greece), or else by the public sector itself (as in Yugoslavia); but total domestic saving fell short of requirements, and the gap had to be made good by a deficit on external account. However, in Greece and Yugoslavia, the ratio of the import surplus to gross domestic investment has declined during the last decade, while the tendency was in the opposite direction in Spain and Portugal (and Turkey up to the mid-fifties). By 1958 the ratio ranged from slightly less than one-half in Greece and Portugal to less than one-fourth for the remaining countries of the group.

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[9] The contrast is more striking than the figures suggest; for apart from unrecorded unemployment, a large part of the industrial labour force in most countries of southern Europe and to some extent in Ireland is employed in small-scale enterprises and handicrafts where productivity is not much higher than in agriculture. In the industrial countries, on the other hand, the majority is employed in modern industries.

[10] The absorption of the entire increase in the active population into non-agricultural occupations will, however, be particularly difficult in Turkey, where, owing to a rather rapid growth of population and the small size of the non-agricultural sector, new entrants to the total labour force each year amount to over one-tenth of the non-agricultural labour force.

[11] In Ireland the situation is, of course, quite different, since animal husbandry is the predominant sector of agriculture and accounts for a substantial share of total exports.

[12] In Yugoslavia gross national product excludes services but includes (as does gross fixed investment) capital repairs. Wherever Yugoslav data have been adjusted in accordance with the OEEC standardized system of national accounts, this is clearly indicated in the tables or in Appendix B.

[13] It is worth mentioning that when — some eighty years ago — the major industrial countries of western Europe had a level of per capita income comparable with that in southern Europe today, their ratio of gross fixed investment to national product was some 50 to 70 per cent lower than in southern Europe today. The share of gross capital formation in gross national product during the last quarter of the nineteenth century was 8 to 10 per cent in Denmark and Sweden. (See A. J. Youngson, *Possibilities of Economic Progress* (Cambridge, 1959), pp. 187-190, 227-230.)

Fluctuations in overall growth and differing long-term rates of expansion of various sectors have often combined to raise difficulties for maintaining internal and external balance. For example, in most countries the expansion of agricultural output has scarcely affected animal husbandry; and in some of them the growth of industrial output has been largely confined to the long-established branches of manufacturing. Rising urban population and incomes, and a greater share of investment in total demand, have nevertheless tended to yield a pattern of demand directed towards consumer goods with higher income elasticities — such as animal protein foods and manufactured (particularly durable) goods and, in some countries, items of conspicuous consumption — and towards capital equipment. In part these demands have been met from higher imports, in so far as the foreign exchange reserves, the rise in export proceeds, and external financing have permitted; but, owing to their present structure (agricultural products, such as food and raw materials, predominate), exports from most of the countries of southern Europe have expanded more slowly since pre-war than imports. Consequently, these countries have encountered balance-of-payments pressures involving some degree (a high degree in Spain and Turkey) of quantitative import restriction.

In Turkey and Spain the inflationary strain reached such proportions by 1958 and 1959 respectively that far-reaching measures of stabilization were adopted. In Yugoslavia the economy was under considerable stress until 1955; but since then a rapid growth of output, notably in the agricultural sector, and also of foreign trade, initiated a period in which strains in the economy were gradually reduced. In Ireland the steady depletion of available exchange reserves, culminating in the balance-of-payments crisis of 1955, and the quasi-stagnation of the economy since 1953 after a period of only slow growth, led to a reappraisal of policies pursued since the war and the adoption in 1958 of a five-year programme of economic expansion.

2. Agricultural Output

The characteristics that broadly distinguish the farming sector in southern European countries from those farther north are: relative aridity, pressure of population in agriculture, with the result that most farms are too small to yield more than subsistence levels of output and that farms have often been split into several plots, while at the other extreme there exist in some countries large and frequently inefficiently operated estates. A consequent misuse of land resources has resulted — in particular, incursions into pasture and forests that have aggravated soil erosion — with out-moded crop rotations leading to lack of diversity of output and, in some countries, to a very high proportion of fallow. The present state of southern European agriculture and the possibilities for introducing changes that would lead to a higher and more varied agricultural output, appropriate to the expected course of demand for food products as economic development proceeds, have been treated in considerable detail elsewhere.[14] The following discussion seeks to appraise the progress that has been achieved in the past generation or two, and to examine the further potential for expansion.

During the last half-century agricultural output in these countries has risen very slowly — particularly in relation to the growth of population — and even in Ireland there was no significant increase from the beginning of the century until the second world war. In Spain agricultural output per capita is still not much higher than in the twenties — even when allowance is made for possible under-estimation in the official data. There was relatively faster growth in Greece, southern Italy and Yugoslavia in the inter-war period (and in the early fifties in Turkey), but at the cost of extending the area under cultivation, which has sometimes led, in turn, to the reduction of pasture and forests.

Yields in most countries have been persistently low for as long as statistics have been recorded — typically around 10 quintals of wheat per hectare and some 1,000 litres of milk per cow per year (see Table 3), though rather lower in Turkey, and of course, higher in Ireland. This is in contrast to the experience of the industrial countries of western Europe, where wheat and milk yields more or less doubled in most countries between 1875 and the 1930s from original levels not far removed from those now prevailing in southern Europe — an achievement, moreover, which took place before the large-scale introduction of synthetic fertilizers or of mechanization, though in more favourable climatic conditions.

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[14] See, in particular, FAO, *Mediterranean Development Project*; and *Economic Survey of Europe in 1953*, ECE, Geneva 1954.

TABLE 3

Changes in yields of wheat and barley and in milk output per cow in southern Europe, Ireland and some other western European countries

Annual averages

Item and period	Greece	Ireland	Southern Italy	Portugal	Spain	Turkey	Yugoslavia	Denmark	France	Germany [a]	Netherlands
					Quintals per hectare						
Wheat											
1871-1880	..	15	..	..	..	..	..	18 [b]	10 [c]	13 [d]	16 [e]
1881-1890	..	19	..	..	..	..	..	24	12	13	18
1891-1900	..	21	..	..	..	..	9 [f]	27	12	17	19
1901-1904	..	24	..	..	10	..	8	27	14	19	21
1909-1913	10	25	..	7	9	..	11	33	13	24	24
1925-1929	7	26	..	6	9	8	12	28	15	20	30
1934-1938	9	23	11	10	10	10	11	30	16	22	30
1950-1952	10	23	11	9	9	11	11	37	18	27	36
1955-1957	14	30	12	8	10	10	16 [g]	40	23	30	38
Barley											
1871-1880	..	20	..	..	..	..	..	..	11 [d]	13 [d]	..
1909-1913	10	24	..	7	12	..	10	23	14	22	26
1934-1938	10	25	11	6	13	11	10	30	15	21	28
1955-1957	11	31	11	6	11	12	14 [g]	37	24	28	38
					Thousand litres per cow						
Milk											
1881-1890	..	..	..	..	..	..	..	1.6	..	..	..
1909-1913	..	1.9	..	..	..	..	..	2.6	1.6	1.8	2.7
1925-1929	..	..	..	..	..	..	..	3.0	1.7	2.2	3.3
1934-1938	0.9	1.7	..	1.2	1.2	0.4	..	3.1	1.8	2.5	3.4
1950-1952	1.0	1.9	..	1.5	1.3	0.5	0.9	3.3	1.8	2.5	3.6
1955-1957	0.9	2.3	..	1.4	..	0.4	1.1	3.5	2.1	3.1	3.9

Sources : ECE, *European Agriculture, A Statement of Problems*, Geneva 1954; OEEC, *Agricultural and Food Statistics*, Paris 1959; FAO, *Production Yearbooks*; and national statistics.

NOTE. — Figures for milk relate to one year within the stated period.

[a] Figures from 1950 onwards refer to western Germany only. [b] 1876. [c] 1875-1880. [d] 1878-1880. [e] 1876-1880. [f] 1893 and 1897-1900. [g] 1958-1959.

Except in Yugoslavia in the last four years, and to a lesser extent in Greece and Ireland, the situation has changed little in the last two decades (see Table 4). The remarkable increase of some two-thirds in Turkish agricultural output since the pre-war period has been attained only by doubling the arable area; and the additional output has done little more than provide for the rapidly increasing population. Moreover, there has been a serious loss of grazing land and forest.[15] Whereas in most countries the major part of such increase as has occurred has been in the output of cereals — primarily wheat [16] — per capita output of livestock products is in general still barely higher than before the war, and the increase in livestock numbers in southern Europe has not kept abreast of the growth of population, except in Yugoslavia.[17] The disparate rates of growth of crops and livestock products have thus been out of line with the long-term change in the structure of demand — away from cereals and towards animal products — that is implied by economic development. (See Table 5.) Consequently, while import-dependence on cereals has everywhere diminished or been eliminated, imports of meat in Greece, Italy and Portugal have been rising.

The area devoted to the production of other major crops has changed relatively little, the main exceptions being those crops — tobacco, cotton, fruit and vegetables — in which the countries of southern Europe

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[15] The biggest expansion in arable area (some 50 per cent) took place between 1948 and 1955. The only comparable expansion was that in the Soviet Union, where the ploughing of virgin lands encompassed an area seven times as large as in Turkey, adding about one-fifth to the total sown area. The ratio of population to agricultural land is more favourable in Turkey than in other southern European countries; and permanent pasture (though mostly of poor quality) is still about one-half of the total agricultural area — a proportion exceeded only in Ireland. In the north-central and south-central regions, however — where there was the biggest absolute addition of arable area — permanent pasture and rough grazing were cut by half between 1949/50 and 1953/54 (see Table 8) so that, unlike the rest of the country, such area is now no larger than that under the plough.

[16] The reasons for this tendency are discussed below (pp. 20-21).

[17] In Ireland livestock numbers have been increasing and population declining.

TABLE 4

Selected indicators of agricultural development in southern Europe and Ireland

Percentage increase per capita

A = Increase from pre-war to average of 1956/57 and 1957/58.
B = Increase from average of 1950/51 and 1951/52 to average of 1956/57 and 1957/58.

Country and period		Total gross agricultural output	Output of crops						Output of livestock products			Area under cereals		Livestock units	
			Total cereals	Bread grain	Coarse grain	*of which:* Maize	Cotton	Fruit and vegetables	Total (gross)	Milk	*of which:* Meat	Total	*of which:* Wheat	Total	Excluding horses, mules and asses
Greece	A	21	27	48	−7	−18	203	108	3	−1	6	−10	5	−12	−13
	B	33	31	48	7	7	96	26	55	49	60	−3	12	17	19
Ireland	A	17	53	169	23	..	..	31	12	22	15	29	95	7	13
	B	23	35	65	23	..	..	10	24	21	31	5	17	8	12
Southern Italy	A	..	−23	−24	−16	−17	28	..	..	..	..	−24	−25	−15	−6
	B	19 [a]	3	1	26	25	61	38	..	7	..	−4	−2	−19	−17
Portugal	A	15	33	39	18	17	..	11	1	51	−1	23	30	−14	−11
	B	1	−1	8	−15	−9	..	4	−3	10	−5	3	10	−8	−8
Spain	A	−16 [b]	−10	1	−22	−8	[c]	−40 [d]	..	..	36 [e]	−16	−11	−18 [f]	−20 [f]
	B	−1 [b]	4	12	—	24	550	−2 [g]	..	21	44	−3	—	−11 [h]	−11 [h]
Turkey	A	11	27	41	8	−7	79	50	−17	−27	−7	23	51	−11	−10
	B	8	21	28	10	−8	−5	19	−8	−18	1	21	30	−3	−2
Yugoslavia [i]	A	18 [e]	−1	2	−2	−2	208	..	..	9 [e]	−3 [e]	−21	−21	— [j]	−1 [j]
	B	43	46	35	53	57	63	..	35	40	32	1	4	−5	−6

Sources and methods : See Appendix B.

NOTE. — Pre-war refers to 1934-1938, except for southern Italy (1936-1939), Spain (1931-1935), and Yugoslavia (1935-1938). Livestock production refers to calendar years (1950 and 1951 or 1956 and 1957), except for Greece and Turkey. Livestock units refer to a census month in each year (January for Yugoslavia and southern Italy, April for Spain, June for Ireland, December for Greece, Portugal and Turkey); conversion factors used: horses, mules and asses 1.0, cattle 0.8, pigs, sheep and goats 0.2.

[a] Increase for the average of the calendar years 1957 and 1958 over the average of the calendar years 1950 and 1951.

[b] Change from pre-war or average 1950/51 and 1951/52 to average of 1955/56 and 1956/57.

[c] Per capita production in 1931-1935: 0.2 kg., in 1956/57-1957/58: 4.3 kg.

[d] 1922-1926 to 1956/57-1957/58; fruit only.

[e] Pre-war refers to 1939.

[f] 1939 to 1955.

[g] Fruit only.

[h] 1950 to 1955.

[i] Data refer throughout to an average of the calendar years 1958 and 1959 in relation (A) to pre-war and (B) an average of the calendar years 1950 and 1951.

[j] Pre-war refers to December 1939.

enjoy a climatic advantage, or which (e.g. tobacco in Greece) are also of particular importance for employment. In all, except Portugal and Spain, production of fruit and vegetables has expanded faster than total agricultural output. Both Greece and Turkey have extended the area under tobacco — in the latter country to more than twice the pre-war area; and there has everywhere been a steep rise in cotton output. In consequence, complete self-sufficiency in domestically-produced varieties and considerable export surpluses have been achieved in Greece and Turkey.

A significant departure from the secular stagnation of yields seems to have been attained only in Greece, Ireland and Yugoslavia — as a result of important progress in recent years. In view of the pre-eminent importance of raising yields in order to increase agricultural output and incomes, this section deals for the most part with those factors which may explain the differences in performance among countries: the volume and pattern of investment; the scale of application of modern farm techniques, and their potential effect on yields; and policies and the institutional framework in so far as they affect incentives to higher output.

(a) The volume and pattern of investment

The proportion of total resources devoted to investment in agriculture and forestry in southern European countries and in Ireland has varied much more widely than the respective shares of agricultural output in gross national product (see Table 2). Investment in agriculture and forestry over the last decade has amounted to about 1 per cent of the gross national product in Greece, to about 2 per cent in Portugal and Spain, and to as much as 3 per cent in Ireland and 5 per cent in southern Italy (see Table 6). In Turkey it was earlier some 4 per cent, but has since fallen to nearer 2 per cent, whereas in Yugoslavia

TABLE 5

Changes in total output of agriculture and of livestock products

Country	Net livestock output [a] as percentage of total net output		Percentage increase in gross output pre-war [b] to 1956/57-1957/58	
	Pre-war [b]	1952/53-1953/54	Livestock output	Total agri-cultural output
Greece	30	25	25	46
Ireland	89	85	10	15
Southern Italy	17	17 [c]	..	..
Portugal	30	30	22	39
Spain	..	37 [d]	..	2 [e]
Turkey	35	25	26	69
Yugoslavia	32 [f]	34	..	39 [g]
Belgium	67	64	31	36
France	59	62	37	24
Sweden	77	74	10	13

Sources and methods : See Appendix B.

[a] Except for southern Italy and Yugoslavia, livestock and total output are net of imported feeding stuffs and store cattle. For these two countries the percentages relate gross output of livestock to total gross output.

[b] 1934-1938, except for southern Italy (1936-1939), Spain (1931-1935) and Yugoslavia (1939).

[c] Calendar year 1951.

[d] 1957/58.

[e] Pre-war to 1955/56-1956/57.

[f] 1948.

[g] 1958-1959 (calendar years).

it has moved within this range on a rising trend. These differences among countries in the share of investment resources devoted to agriculture bear no close relationship to the dissimilar rates of growth of agricultural output (Table 1). The relation between gross additions to capital and the annual increment of output obtained (i.e. the marginal capital/output ratio) within a given period is partly a function of the distribution of investment between relatively expensive and slow-yielding projects and relatively cheaper and quicker-yielding ones, and combinations of the two.[18] Moreover, other factors, including institutional ones, are also influential.

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[18] The marginal capital/output ratio in agriculture for different countries has been as follows:

	Period	*Ratio*
Portugal	1950 to 1958	6.4
Southern Italy	1950-1951 to 1957-1958	4.0
Yugoslavia	1948 to 1959	1.7
Turkey	1948 to 1956	1.1
Greece	1950 to 1957	0.5

Sources and methods : See Appendix B.

Owing to the shortness of the period covered, statistical limitations of the data on agricultural investments (for example, the probability of underestimation in Greece) and annual fluctuations in crops, small differences in capital/output ratios are hardly significant; but the contrast between the ratios for Greece, Turkey and Yugoslavia, on the one hand, and southern Italy and Portugal, on the other, is rather striking.

TABLE 6

Distribution of gross fixed investment in agriculture and forestry in southern Europe and Ireland

	Greece		Ireland	Southern Italy	Portugal		Spain		Turkey		Yugoslavia	
	1951-1953	1954-1957	1953-1957	1950-1957	1952-1954	1955-1958	1952-1954	1955-1957	1951-1953	1955	1950-1953	1954-1958
	Annual averages in national currencies [a]											
Total gross fixed investment in agriculture and forestry	462	766	14	120 *	712	793	4 450	6 503	581	524	20.5 [b]	49.1 [b]
	Percentages of total fixed investment in agriculture											
Land improvement and reclamation	35	29	25	26	43	45	41	40	11	14	..	15
Tractors and other machinery			38 [d]	33	17	20	40	32	30	32	20 [e]	35 [e]
Construction work and miscellaneous	65	71	37	41 [f]	40	35	19 [g]	28 [g]	59	54	80	50
of which : Forestry			*4*	..	*1*	*1*	*10*	*13*	..	..	*15*	*14*
	100	100	100	100	100	100	100	100	100	100	100	100
Other investment, not included above [h]	—	—	—	18	16	15	—	—	—	—	21	36
Gross fixed investment in agriculture as percentage of:												
Total gross fixed investment	9	7	17	21 [i]	12	11	16	13	34	23	6	13
Gross national product	1.2	1.1	2.6	5.2 [i]	1.7	1.6	1.8 [j]	1.8	4.0	2.5	1.8	3.5
Agricultural output as percentage of gross domestic product	36	35	30	32 [i]	30	28	25 [j]	25	49	41	33	28

Sources: See Appendix B.

NOTE. — Land improvement and reclamation generally includes all schemes increasing the natural fertility of land, such as irrigation, drainage, recovery of waste land, flood control, river diversion, etc.

[a] Millions of national currency units (for southern Italy and Yugoslavia : billions). Data are at current prices except for Yugoslavia (1956 prices throughout) and for Turkey in 1955 (1954 prices).

[b] State investment only.

[d] Including tools, containers, etc.

[e] Including equipment for small processing establishments on farms.

[f] Including rural roads and electricity and water supply (17 per cent of total investment).

[g] Including electricity and water supply (1 per cent and 2 per cent of total investment in 1952-1954 and 1955-1957 respectively) and rural dwellings.

[h] Southern Italy and Portugal: rural dwellings. Yugoslavia: private investment in agriculture.

[i] 1952-1957.

[j] 1954.

With the exception of Yugoslavia and Turkey, the distribution of investment among the three major types distinguished in Table 6 shows little variation among countries. Very roughly, an average of about one-third of total agricultural investment has been devoted to land improvement (including irrigation and reclamation), another one-third to tractors and other machinery, and the remainder to forestry, construction works and miscellaneous items.[19]

The differences among countries in the marginal capital/output ratios reflect not only differences between fast-yielding and slow-yielding investments but also the degree of effective utilization of fixed capital assets — which is scarcely capable of statistical measurement. Irrigation projects, for example, cannot give their maximum yields if complementary investment in secondary channels is lacking. Although the past cost/output relationship for a given kind of investment, such as irrigation, might not be applicable in the future, it seems that, whereas additional investment of a complementary nature would yield substantial results in some cases, in others new investment might be more expensive in relation to output than in the past.[20]

Land Reclamation and Improvement (including Irrigation)

In some countries of southern Europe, such as Greece and southern Italy, where the pressure of population on agricultural land is particularly acute, the reclamation of water-logged or mountainous land can enlarge the available agricultural area, though not without some cost in terms of investment. In all countries, tracts of semi-productive land on which some form of cultivation takes place could be rendered far more productive by means of terracing, levelling, or other treatment such as drainage; and such land improvement is at present an important activity, sometimes associated with agrarian reform, throughout the region — particularly in southern Italy, where much of the redistributed land had been sadly neglected. Yet in most countries these two kinds of investment affect only a small proportion of the total agricultural area. By far the most important investment directly raising the fertility of the soil over a large part of the total area is in irrigation and related projects for controlling the supply of water, e.g. river diversion and flood protection.

The relative need for irrigation varies according not only to average rainfall but also to the distribution of rainfall throughout the year, and to other factors — such as the ability of soil to retain moisture. The value of irrigation by no means exclusively consists in the doubling or tripling of yields of existing crops that it makes possible; it is in many areas an essential means of attaining the long-term objective of diversifying agricultural output so that greater emphasis is placed on the cultivation of more valuable crops. Such diversification, with higher yields of fodder crops, is also a *sine qua non* for the continuing increase, in the long run, of supplies of animal produce that the rise in incomes which accompanies economic development demands. A reduction in annual fluctuations in yields due to the weather, the introduction of a second crop in the year, less fallow and the more intensive use of the labour force throughout the year are among the other benefits brought by irrigation.[21]

All the countries of southern Europe have embarked on irrigation programmes (and sometimes, as also in Ireland, on land reclamation). In some, such as Spain, they were started many years ago, but were interrupted by war and other disturbances. The rate of progress has, of course, depended on the financial and technical means of the public authorities, and in any case only a small portion of the total area can be irrigated in any one year. New post-war irrigation in Greece, for example, has covered 2-3 per cent of the total arable area, and in southern Italy 3-4 per cent. The irrigation schemes have not always been part of a long-term programme in which work has proceeded by well-conceived stages, chosen — in the context of social and other factors — after close study of where to begin and where the best economic returns lie. Too often, the weight attached to such factors, and the decisions taken, have been based not on economic calculations, but on the relative strength of different pressure groups or local interests, on considerations of immediate cost — or even of internal or external ‘prestige’ value. For these, and for other reasons mentioned below, the effect of irrigation on yields and on changes in the structure of agricultural output in the past decade cannot be taken as a reliable guide to the benefits that well-conceived, long-term programmes could bring.

Although irrigation has undoubtedly raised, over a longer period, the average yields of individual crops, such as wheat in Spain, there can be little doubt that many of the potential advantages of existing irrigation schemes have not been fully exploited, owing largely to the lack of complementary investments in land preparation, drainage, etc., or to the failure to extend main channels of water supply right up to individual farms. Nor are the gains from irrigation maximized if the regular provision of water is not combined with improved farming methods, and especially with the judicious use of fertilizer and improved seed. Partly because of such omissions, wheat yields on irrigated land in southern Europe averaged no more than 17 quintals per hectare between 1952 and 1956.[22] It would appear that in Spain and Turkey, to take only two examples, important gains could still be achieved if methods of farming on irrigated land were improved.

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[19] For further detail concerning the coverage of the data, see Appendix B.

[20] In Greece, for example, recovery to pre-war output levels after the end of the civil war in 1950 could be achieved with relatively little investment, since it required only the restoration of abandoned land, repair of the network of irrigation, drainage and rural communications, and completion of a number of major projects by secondary additions. Future expansion of the irrigation network, however, will entail relatively heavier investment costs. Similarly, the 40 per cent expansion of output in Turkey between 1950 and 1957 was achieved through a considerable increase in the cultivated area, involving little investment in relation to the increase in output.

[21] For a fuller discussion of the potential of, and the problems involved in, irrigation, see *Mediterranean Development Project*, p. 77 *et seq.*

Partly for technical reasons the irrigation carried out so far has not always resulted in greater diversity of output (though a gradual change is taking place in southern Italy); for much of the newly irrigated land has been sown to wheat and other grains. In Spain, where the irrigated area under wheat and maize has risen by about one-half since 1950, this may also have been due to the compulsory minimum areas prescribed for wheat. In some regions of Turkey transport difficulties have been a disincentive to diversifying output since they have hampered the marketing of other crops. In Greece, on the other hand, two-thirds of the area irrigated since 1953 has been devoted to cotton — a high-value export crop covering only a small surface and one which benefits greatly from irrigation; but excess application of water has kept yields well below their potential.[23] The advantages of irrigation are particularly evident, and the need for irrigation particularly pressing, in areas where precipitation is so low and irregular that increased yields and diversification of output can scarcely be obtained by other means.

In view of the numerous competing claims on limited investment resources from all parts of the economy, questions of relative cost and relative contributions to higher output are important. Yet it is open to question whether in southern Italy and in Ireland enough attention has in the past been paid to such considerations.

In southern Italy, and in particular in the reclamation districts and land reform areas,[24] the improvement of soil productivity has included irrigation, reforestation and drainage. Since families in the reform areas had to be settled on land which had neither housing, social amenities nor basic infra-structure, some complementary social investment was unavoidable and has been undertaken: the building of rural roads, the construction of farm dwellings and cattle sheds, rural electrification and other infra-structure and social investment associated with resettlement. Expenditure on farm dwellings has added nearly one-fifth to all other investment and within the land reform areas the proportion has been nearly twice as high. Much of the investment has not therefore been of an immediately productive kind and, despite large investment in agriculture, total output (excluding fruit and vegetables) has expanded relatively little.[25] Now that most of the planned investment in infra-structure and social amenities in the reform areas has been completed, resources can be increasingly devoted to more directly productive projects — tillage, levelling, etc. — to developing the livestock sector and to enlarging the scope of co-operative organization in order to combine large-scale operations with small farm units.

Of equal importance, if the full benefits of such investment in southern Italy as a whole are to be reaped and output diversified, will be the provision of appropriate extension and other services and of credit facilities both for equipment and for working capital. Indeed, greater emphasis on investment in facilities complementary to the direct production process (such as market organization, technical assistance and training, research and extension services) is of essential importance for raising agricultural output and changing its structure in southern Italian agriculture.[26]

Most of the migration in Ireland — whether overseas or to the towns — is from the congested western counties where, notwithstanding the priority given to public investment in improving and reclaiming land and so enlarging the average size of holdings, agri-

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[22] *Mediterranean Development Project*, p. 124.

[23] *Ibid.*, p. 78; and FAO, *Greek Country Report*, Chapter III, p. 37, Rome 1959. (This, and other country reports, were published in 1959 as separate volumes forming part of the FAO *Mediterranean Development Project*. For the sake of brevity they have been referred to in what follows as e.g. FAO, *Greek Country Report*.

[24] ' Reclamation districts ' cover more than 60 per cent of the agricultural area of southern Italy and the land reform areas less than 5 per cent. About one-seventh of total agricultural investment in the south since 1950 and two-fifths of total expenditure on land reclamation and improvement carried out under the auspices of the Cassa per il Mezzogiorno have been in the land reform areas.

[25] A marginal capital/output ratio of 6 : 1 has been attributed to agricultural investments planned by the Cassa for the period 1950-1962. (Cf. Cassa per il Mezzogiorno, *Programma dodecennale degli interventi nel settore dell'agricoltura*, Rome 1957, p. 51.)

[26] See *Annuario dell'Agricoltura Italiana 1958*, Rome 1959, p. 361. The planned pattern of investment for Italy as a whole in the period 1955-1958, as laid down in the Vanoni Plan, in fact provided for greater emphasis on these lines, but in the result much less was spent on livestock and technical assistance than was foreseen:

Planned and actual expenditure in Italy under the Vanoni Plan, 1955 to 1958, on fixed investment and certain other items

	Plan	*Actual*
	(Billions of current lire)	
Total investment in land reclamation and improvement	895	924
of which :		
Southern Italy	*492*	*544*
Expenditure on:		
Mechanization	120	139
Increases in livestock	128	29
Processing plants	72	14
Technical assistance and training	116	39

cultural output has continued to rise at a much lower rate than in the rest of the country.[27] Since land is relatively plentiful elsewhere in Ireland, it has been suggested that the investment in land reclamation which has been undertaken in the area represents an uneconomic allocation of resources.[28] The programme has involved a considerable public subsidy that might have been applied to boosting the productivity of existing arable land or pasture, or to inducing more resettlement on land elsewhere. This is now the view of the Irish authorities, who propose to abandon the main part of the scheme once existing commitments have been fulfilled.[29]

Estimates of the costs of irrigation schemes in different countries vary considerably. Purely technological considerations may limit the choice of technique in building dams in some instances, but in others simple designs — including masonry and earthen dams involving the use of local materials and manpower — may help to reduce the total cost. Or, the lining of canals with cement may be approached in stages. There are also possibilities, often unexplored, of using underground water by sinking artesian wells and using electric or diesel-oil pumps.[30] The bigger and the more expensive the irrigation and reclamation works undertaken, and the slower they mature, the more important it is, on two counts, to keep down total costs in relation to the output objectives sought. First, because of the competing claims of other sectors (in so far as the investment resources are transferable); and second, because the incomes generated are not immediately matched by additional supplies. As a general rule, when irrigation and related public works are not performed by voluntary labour (e.g. through community development schemes), the income generated is not matched by higher output until the projects mature and so adds to the problem of preserving internal stability in the interim.

TABLE 7

Numbers of tractors in southern Europe, Ireland and two western European countries

Country	Arable land in 1957		Number of tractors per thousand hectares of arable land		
	Million hectares	Hectares per 1,000 inhabitants	1934-1938	1949-1952	1957
Greece	3.5	415	0.3	1.5	2.8
Ireland	1.4	490	1.5	12.3	21.7
Southern Italy	7.4	410	0.7	1.2	4.3 [a]
Portugal	4.1	465	0.1	0.9	1.2
Spain	28.6	700	..	0.7	1.7
Turkey	24.1	945	0.1	1.1	1.8
Yugoslavia	8.3	460	0.3	0.8	3.6 [b]
Denmark	2.8	615	1.3	8.0	27.8
France	21.3	485	1.5	7.0	22.4

Sources : FAO, *Production Yearbooks*; and national statistics.
[a] End of 1958. [b] End of 1959.

The Role of Tractors and Other Machinery

The tractor park has grown in all countries of southern Europe and in Ireland (see Table 7) — usually with the encouragement of state-provided credit facilities (as in Greece, southern Italy and Turkey) or through co-operative organizations (as in Yugoslavia). Mixed motives of labour-saving and of substitution of mechanical for animal draught power have probably been responsible in some countries;[31] but the possibility both of deeper ploughing (with consequent increases in yields) and of quicker sowing and harvesting (thus reducing losses and in some cases reducing fallow) has been as a rule more important. These latter considerations account for the strong rise in tractor numbers in Greece and Yugoslavia, though in all countries it has naturally been strongest on the larger farms.[32]

Tractors were few and far between in Turkey before the last war; but with the support of official credit policies their numbers increased sharply between 1948 and 1952 (i.e. during the major extension of arable area). From Table 8, however, it is plain that the three regions (north-central, south-eastern and south-central) which accounted for almost two-thirds of the increase in area under cereals absorbed only one-third or less of the increased supply of tractors; the biggest rise in the stock of tractors took place in the Aegean and Mediterranean regions, where there was very little increase in arable area, but rather more large-scale commercial farming than in the rest of the country. This suggests that tractors made no major

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[27] Cf. J. J. Byrne, "Some Provincial Variations in Irish Agriculture", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XX, Part II, 1958-1959.

[28] See *Economic Development* (Pr. 4803), Dublin 1958, pp. 128-129.

[29] See *Programme for Economic Expansion* (Pr. 4796), Dublin 1958, p. 14.

[30] For such possibilities in southern Italy, see Cassa per il Mezzogiorno, *Indagine sulle acque sotterranee del Tavolere-Puglie*, Rome 1958.

[31] A recent estimate for Greece suggests that the total cost (in foreign exchange per year) of operating the present stock of tractors comes to $4.5 million; if the same work were done by animal draught power, domestic fodder to the value of $12.5 million would be needed. (See FAO, *Greek Country Report*, Chapter III, p. 59.)

[32] In the fertile Vojvodina region of Yugoslavia, in which state and co-operative farms cover one-fourth of the total area, tractor numbers expanded five-fold between 1955 and 1959, against a national average of 3.5, with the result that there are now some 10 tractors per thousand hectares of arable land, against a national average of 3. In Portugal 70 per cent of all tractors are in five southern provinces, where not only is the country flatter, but also the large and richer estates predominate.

TABLE 8

Turkey: regional changes in area under crops and pasture, and in numbers of tractors

A — Percentage increase by regions *B — Percentage of national increase*

Region	Ratio of meadows and pastures to arable land		Total cereals				Wheat								Tractors	
			Sown area				Sown area			Output	Average yield					
			Thousand hectares		Increase from 1946-1950 to 1957		Thousand hectares	Increase from 1946-1950 to 1957		Increase from 1946-1950 to 1957	Quintals per hectare				1957	Increase 1948 to 1957
	1949/50	1953/54	1934-1938	1946-1950	A	B	1946-1950	A	B	B	1934-1938	1946-1950	1951-1953	1955-1957	Per thousand hectares under cereals	B
South Central	2.4	0.9	984	1 408	90	28	784	107	28	25	10.0	8.8	12.0	9.5	1.8	12
North Central	2.2	1.0	1 266	1 688	62	23	1 111	67	25	24	8.9	9.0	12.8	9.7	2.3	15
South-east	6.8	2.9	435	508	119	14	301	141	14	11	8.9	8.2	11.3	9.5	1.7	5
Mediterranean	2.2	1.5	710	620	53	7	302	86	9	11	8.8	9.0	12.2	12.0	8.8	20
Black Sea	2.2	2.2	636	704	43	7	241	32	3	3	9.7	7.5	10.6	10.0	0.9	2
Marmara	1.2	0.6	644	691	41	6	323	44	5	6	9.7	9.5	11.4	10.9	6.8	16
North-east	7.7	4.3	506	381	64	6	209	82	6	5	10.1	8.3	12.7	9.0	0.8	1
Aegean	1.8	1.7	854	889	23	5	390	24	3	6	11.6	9.0	11.3	12.4	9.4	25
Central east	3.9	2.7	572	846	24	4	545	37	7	9	12.0	7.4	12.4	9.4	1.6	4
Total	2.9	1.7	6 607 [a]	7 735	58	100	4 206	70	100	100	10.7	8.6	12.0	10.0	3.4	100

Sources : National statistics.

[a] Total obtained by the addition of regional figures; the total given in the source is 6,339,000 hectares.

contribution to extending the area under cultivation;[33] and given the extremely low fertilizer consumption in Turkey (see Table 9), it is possible that at least part of the expenditure on imports of tractors might have given higher returns if spent on fertilizers, without even seriously interfering with the ploughing up of new land.[34] In Spain, it is hoped to raise the ratio of tractors to arable land in the next five years, at considerable import cost, to about 10 per thousand hectares (i.e. the level now prevailing in the Vojvodina area of Yugoslavia), which raises the question whether this target takes fully into account the relative costs and advantages of other short-term and long-term investments, including irrigation.

As can be seen from Table 7, the tractor park in most southern European countries now stands in a relationship to arable land similar to that prevailing in pre-war periods in the industrial countries of western Europe. In the latter countries the rapid post-war expansion in tractor numbers has been largely due to the growing shortage of farm labour for hire (which in southern Europe is essentially a seasonal problem), and to the consequent desire to raise output per unit of labour. The replacement of under-employed labour in southern Europe by tractors, when no other work is available, raises difficult social problems;[35] and

TABLE 9

Consumption of fertilizers [a] in southern Europe, Ireland and two western European countries

Country	Kilogrammes per hectare of arable land		
	1934-1938	1950/51	1957/58
Greece	6	15	34
Ireland	33	63	89
Southern Italy	11	17	28 [b]
Portugal	11	18	34
Spain	6	11	28
Turkey	—	—	1
Yugoslavia	1	2	36
Denmark	60	94	129
France	35	50	90

Sources : FAO, *Production Yearbooks*; and national statistics.

[a] Nitrogen, potash and phosphorous fertilizers in terms of plant nutrient material.

[b] 1957.

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[33] Since only 2 per cent of Turkish farms possess mechanical power, it would seem that it was essentially large-scale farming that benefited from the growth of the tractor stock. Tractors may, however, have been responsible for raising wheat yields in the coastal regions faster than the national average.

[34] The cost of imported tractors was over $55 million (c.i.f.) during 1948-1956; this expenditure represents roughly twice the foreign exchange cost of the fertilizer plant now under construction at Kütahya, the output of which would enable fertilizer consumption in Turkey to double. Thus in terms of foreign exchange the " opportunity " cost of importing tractors was equivalent to the (once-for-all) cost of a fourfold increase in the annual consumption of fertilizers.

[35] This has been the case, for example, in Portugal.

though tractors can as a rule help to raise yields even when the primary objective is to raise labour productivity, it is desirable that for the time being the further extension of the tractor park in southern Europe be closely governed by its effects on yields.

Ultimately most southern European countries may be expected to reach a rather higher level of tractor density as labour is absorbed into other occupations, and, as the post-war experience of industrial countries illustrates, even 10 tractors per thousand hectares would be rather low in this context. It is interesting to note that in the relatively less industrialized countries of eastern Europe — Hungary and Poland — roughly the same density of tractors is planned for 1965 as in Spain; whereas in Czechoslovakia — a much more industrialized country — the density is to be more than twice as great by that time. Apart from Poland, however, the plans of all eastern European countries assume a concomitant loss of farm labour to non-agricultural activities (see Chapter III, pp. 10, 11). But even at an equivalent pace of reduction of the agricultural labour force in southern and eastern Europe, the desirable rate of substitution of tractors for manpower depends on differing patterns of output and on such institutional factors as the average size of farms and systems of agricultural organization, which determine the efficiency with which additional supplies of tractors could be used.

These considerations, and the fact that a considerable part of the increased supply of tractors involves for most countries expenditure of foreign exchange on current operation and maintenance, also point to the need for a more efficient use of the existing stock. It is important both that the type of tractor used be the most appropriate for the nature and size of land worked, and that there should not be an excessive variety of makes and types, requiring a complicated distribution network for parts and accessories. Moreover, if there is not enough skill for adequate local repair and maintenance, the existing stock cannot be fully used, particularly when — as has happened in Turkey and Spain — foreign exchange difficulties limit imports of spare parts. Much the same applies to expenditure on the purchase and maintenance of other kinds of machinery and equipment, though generally (i.e. apart from equipment intended mainly to lighten the burden of manual work) their purpose is more efficient sowing and harvesting with consequently reduced harvest losses.

(b) Improved farm management and the application of modern techniques

Important investment resources in all the countries considered will have to be devoted to the systematic implementation of long-term programmes of irrigation, land improvement, and reafforestation that are necessary both to make good centuries of neglect and abuse of land and to bring about the desired changes in the pattern of land use. But it is clearly desirable *per se* that at the same time no means be neglected of raising yields from rain-fed farming — especially when the provision of resources for this purpose in no way detracts from the implementation of a long-term programme. In fact, some of the prerequisites for raising yields in dry farming areas are no less indispensable in irrigated areas. The proper (and more liberal) use of fertilizers and selected seed, and generally improved farming techniques are outstanding cases in point. Besides, the greater and the quicker the increase in agricultural supplies, the more manageable will be the problem of preserving internal balance while undertaking more slowly maturing investments both inside and outside agriculture, particularly since foodstuffs constitute one-half to two-thirds of consumer expenditure in these countries, and recourse to food imports is limited by the availability of foreign exchange.

Only in Greece and Yugoslavia, of the southern European countries, has really substantial progress been made in raising yields from dry farming; and it may be that in Greece the greater part of the more easily achieved gains have now been made and that further advances will call for greater resources than hitherto. In both countries the increases have been achieved in only the last few years, *pari passu* with the necessary organization of services and supplies. How far similar attainments are within the grasp of other countries depends on a number of factors — some institutional, some technical. On the institutional plane, certain questions of incentives to higher output, which are discussed below, and of forms of economic organization arise; on the technical plane, the tractability of the soil in given climatic conditions has to be taken into account. In certain parts of some countries — for example, Turkey, Spain and southern Italy — the possibilities of increasing yields without more (and, above all, a more regular supply of) water appear to be limited. But where natural conditions are less unfavourable, and where modern agricultural techniques have not yet been applied and adapted to local conditions, some increase in yields seems possible.

Yields from Crops

Improved farming methods in southern Europe could take various forms. Of these, the more obvious (though in the absence of a determined educational effort to overcome ignorance and tradition they may not be so easily and quickly adaptable to the small landowner) are the wider use of both organic and synthetic fertilizer, improved seed, deeper ploughing, where this can be done without harm to the soil, and (subject to the same condition) reducing fallow by introducing new crops into the rotation.[36] But there are also many others, such as preventing rain water from running out of the field by raising small earthen banks; the use of pesticides and weed killers; timely and more efficient ploughing, sowing, weeding and harvesting; and — not least — the more rational and efficient organization and management of work on the farm. Organized research into the techniques most suited to prevailing natural conditions, and dissemination of the results, are equally a prerequisite for such improvements.

Many improvements of this kind require little, and relatively simple, equipment or tools. Their full benefits can be realized, however, only if institutional factors (such as land tenure systems) and price and tax policies towards the agricultural sector are not such as to discourage higher output, and if organizations, whether official or set up by farming interests themselves, exist for making known the results of research, for supplying agricultural credit and for marketing produce.[37] Under just such conditions as these, Danish farming had been successfully transformed by the early years of this century;[38] and, *mutatis mutandis*, significant increases in yields have been achieved in the last five years in Ireland, Greece and Yugoslavia.

Average wheat yields in Greece are now about 50 per cent higher than in 1950-1952, and than they were prior to the last war (see Table 3). The use of improved seed is estimated to be responsible for 25 per cent and deep tractor ploughing for another 10 per cent of this rise; and it is believed that the increase in crop area of approximately 15 per cent between 1950 and 1958 is partly attributable to a shorter crop rotation yielding a reduction of fallow, which has been facilitated by the increased use of machinery and fertilizer and by price-support policies for wheat.[39] The resultant increase in output would not have been possible but for the successful development of extension services, the credits and subsidies extended to encourage the use of guaranteed seed and of fertilizer, and price support for wheat.[40] Co-operative organization has also played an important rôle in the distribution and utilization of the means of production, such as tractors. Although fertilizer consumption in Greece has risen sharply in recent years, still no more than one-third of the total cultivated area receives adequate fertilizer treatment. Similarly, the supply of improved seed (and here progress in Greece has been greater than in other countries) has so far been extended to only two-thirds of the wheat area.[41]

In Yugoslavia, an organized and sustained effort to raise output in rain-fed farming and in animal husbandry was begun in 1956, and by 1957 the average yield of wheat had already risen to 16 quintals per hectare, or nearly 40 per cent above the general level prevailing over the last 50 years. This was partly due to the excellent weather, but in the 1959 harvest (an average one, following drought in 1958) yields rose even further, to 19 quintals, or some two-thirds above the flat long-term trend prior to 1956. Similar results were obtained for maize and sugar-beet. The highest yields, as in the past, have been obtained from the more fertile Vojvodina region, where the proportion of state and co-operative farms (which are large and well equipped) is highest. But what is more significant is that yields in other parts of the country have also risen sharply. In view of the fairly extensive information now available on the progress made in Yugoslav agriculture in a relatively short span of time and its possible relevance for other countries in the region, a detailed appendix on the subject is given at the end of this chapter. Only the essentials are mentioned here (see Table 10).

Soil conditions and precipitation are in many respects more favourable in Yugoslavia than in the other countries of southern Europe. Clearly, and quite apart from institutional differences, a blind application of Yugoslav methods would not necessarily yield the same results; but the more widespread application of methods used in Greece and Yugoslavia might none the less lead to positive results in the other countries of the region which have not succeeded in raising yields.

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[36] The technical problems involved in reducing fallow and in the choice of alternatives to the cereal/fallow rotation are discussed in the FAO, *Mediterranean Development Project*, p. 72 *et seq.*, which suggests (p. 120) that fallow on dry-crop land throughout southern Europe could be reduced in twenty years from over one-fourth of the total crop area to under one-fifth (mainly through reductions in Portugal, Spain and Turkey).

[37] See H. Belshaw, *Agricultural Credit in Economically Underdeveloped Countries*, FAO, Rome 1959.

[38] Until the 1880s Danish agriculture was based mainly on wheat and other crops, with Europe, and especially the United Kingdom, an open and growing market. The fall in prices that followed the upsurge in output of the North American granaries threatened the livelihood of Danish farmers, who were consequently forced to reconsider their whole pattern of agricultural production. They responded by abandoning former extensive methods of cultivation, by paying greater attention to livestock and fodder (with a consequent reduction of fallow) and by applying the results of research to animal husbandry and crop-farming through the organization of co-operatives. Within 30 years the transformation was complete and wheat and milk yields were brought close to present-day levels. (For a fuller account, see *Agricultural Development and Rural Reform in Denmark*, FAO, Rome 1953.)

[39] FAO, *Mediterranean Development Project*, pp. 85 and 74; FAO, *Greek Country Report*, Chapter III, p. 58; and *Report on a Sample Survey of Land Use in Greece*, National Statistical Service, Athens, May 1958.

[40] Agricultural credits (mainly through the Agricultural Bank, which also distributes subsidized fertilizer) and subsidies for fertilizer and for guaranteed seed, together with public contributions to the price support for wheat, now amount to about one-tenth of the value of gross agricultural output.

[41] See FAO, *Mediterranean Development Project*, p. 195.

TABLE 10

Increases in area and yields of wheat and maize in Yugoslavia, 1955 to 1959

	1955-1956	1957	1958	1959	1957	1958	1959
Wheat	*All varieties*				*Italian strains*		
	Yields *(quintals per ha)*						
Vojvodina	14.7	18.9	14.5	25.6	30 *	38.3	43.7
Other regions	10.7	14.7	11.6	16.8	27 *	32.6	33.7
National average	11.3	15.8	12.3	18.9	28 *	35.0	37.5
Individual farmers:							
Collaborating with co-operatives	..	..	..	..	..	20.6 [a]	39.1 [a]
Others	..	15.2	11.9	15.6	..	..	..
	Sown area [b] *(thousand ha)*						
Vojvodina	443	483	476	499	..	13	124
Other regions	1 335	1 487	1 514	1 631	..	20	194
National total	1 778	1 970	1 990	2 130	..	33	320
Individual farmers collaborating with co-operatives	..	..	..	..	..	..	230
Maize	*All varieties*				*Hybrid maize*		
	Yields *(quintals per ha)*						
Vojvodina	21.3	32.1	29.2	38.1	39 *	43.0	50.5
Other regions	12.0	18.5	12.0	22.2	28 *	32.9	42.6
National average	14.4	21.9	16.5	26.2	31 *	39.0	46.2
Individual farmers:							
Collaborating with co-operatives	..	..	..	..	..	39.3	45.0
Others	..	20.8	14.2	22.1	..	..	..
	Sown area *(thousand ha)*						
Vojvodina	581	625	625	649	62	137	202
Other regions	1 936	1 965	1 765	1 941	28	91	230
National total	2 517	2 590	2 390	2 590	90	228	432
Individual farmers collaborating with co-operatives	..	..	..	..	..	70	310

Sources and methods : See Appendix B.

[a] Individual farmers collaborating only partly with the co-operatives (see Appendix to the chapter) obtained yields of 18 quintals per hectare in 1958 and 27.8 quintals per hectare in 1959. For the Vojvodina alone, farmers who fully collaborated attained yields of 28.9 and 39.1 quintals per hectare, and other individual farmers yields of 11.2 and 19.0 quintals per hectare.

[b] The area for wheat relates to sowing for the harvest of the calendar year shown (i.e. to sowing in the previous year). For the 1960 harvest, the following areas were sown in 1959 to Italian seed (thousand ha): national total: 820; individual farmers collaborating: 465; others: 150.

Essentially, the technique applied in Yugoslavia (and on broadly the same lines in Greece) depends on the combination of four major factors: the use of improved seed (Italian strains for wheat and hybrid American strains for maize);[42] the application of a minimum of 400 kg (gross) of appropriate fertilizer per hectare; deeper ploughing with tractors (down to at least 20 cm. and sometimes even to 40 cm.); and thicker sowing. The rapid increase in fertilizer consumption and in tractor numbers in Yugoslavia was directly related to the implementation of the new technique, and results have often been much less satisfactory when one of these four elements was missing.

Use of fertilizers and tractors in Yugoslavia

	1955-1956	1957	1958	1959
Fertilizer consumption	*Kg. (gross) per ha of arable land*			
Vojvodina	59	189	278	362
Other regions	45	76	89	132
National average	48	100	128	183
Arable area per tractor	*Hectares*			
Vojvodina	365	178	167	133
Other regions	868	725	523	325
National average	686	373	318	255

Sources : See Appendix B.

This, as it might be termed, combined technique in Yugoslavia was first applied on state and co-operative farms (comprising about one-tenth of the cultivated area) which — given their dispersal throughout the country — served as demonstration centres. But only after the abandonment of forced collectivization and compulsory deliveries, and after the relative increase in agricultural prices and an augmented supply of consumers' goods to rural areas, did it become possible to interest the small farmer in the possibilities of expanding saleable output and to overcome years of conservatism and doubt. The technique has gradually spread to the individual farmers,[43] who collaborate with the state and co-operative farms and with the general co-operatives, with results that are illustrated in Table 10. From 40,000 hectares in 1958, the area covered by individual farmers collaborating with the co-operatives[44] in production of wheat rose to nearly 600,000 hectares (or one-third of the national total) in the 1959 sowing season.

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[42] The use of appropriate selected strains is perhaps the most important single element responsible for higher yields. As Table 10 shows, wheat and maize yields outside the Vojvodina have come nearer to those prevailing in the Vojvodina in areas sown to Italian seed and hybrid maize than in other areas. By 1958 the area sown to Italian wheat (for the 1959 harvest) covered some 15 per cent of the total wheat area and for 1959 about one-third — and will be somewhat higher for hybrid maize for the 1960 harvest.

By 1958 (for the 1959 harvest) one-fourth of the Vojvodina area and 15 per cent of the whole country was sown to improved seed for wheat, and even outside the Vojvodina there was a wide disparity between yields in 1959 from Italian strains (34 quintals per hectare) and those from traditional varieties (14.5 quintals). Similar results were obtained for maize. Furthermore, yields from areas sown to improved seeds — both in the Vojvodina and in the rest of Yugoslavia — did not fall in consequence of the bad weather in 1958 as they did in other areas: average wheat yields from Italian strains rose in 1958 above the 1957 level and in 1959 reached 37.5 quintals per hectare in an area of 320,000 hectares — a yield comparable to that of Denmark and the Netherlands.

The results so far obtained in other countries have been less impressive, though in Ireland there has been a not insignificant rise in milk yields. The Irish advance appears to be due to the success of the subsidy scheme for ground limestone (which indirectly fixes nitrogen in the soil) and to the gradually spreading recognition that grass (which provides a much higher proportion of animal feed in Ireland than in other European countries) requires proper grazing management, haymaking and silage conservation if its properties are to be preserved.[45]

Despite the relatively greater application of fertilizer and improved seed in 19 state farms in Turkey, situated chiefly in the semi-arid regions, their yields of wheat over a number of years have been only 10 per cent higher than the national average. Soil and climatic conditions in the semi-arid Anatolian plateau are not perhaps especially responsive to improved farming methods, but even there an increase of 10 per cent in yields from dry-farming is considered possible.[46] But the very small difference in average yields between the coastal regions and the drier inland regions, despite an average rainfall in the former of over 600 mm. per year as opposed to less than 400 mm. in the latter, suggests that the more widespread application of fertilizers, improved seed and better farming techniques might lead to significantly higher yields where precipitation is greatest and suitably distributed over the seasons. In some areas of Marmara wheat yields of 20 quintals per hectare are common in rain-fed farming, and to the extent that increases may have occurred in other parts of the country they do not show up in the national returns because of the extension of cultivation to less productive land. In stark contrast to other countries, fertilizer consumption in Turkey is negligible (see Table 9): its use is confined to a number of special crops, and even then probably only on the biggest plantations.

In Italy as a whole only about 20 per cent of wheat seeds and 15 per cent of maize seeds are of selected quality, and for the southern regions the proportions are probably below the national average. Relatively little progress has so far been made in determining which varieties of seed (particularly for hard wheat) are best suited to southern Italian soils and most likely to contribute to higher yields. One reason for the rather limited use of selected seed (and of fertilizer) may well be the absence of any general subsidy on these items.

In Spain all seeds for sugar-beet, lucerne, cotton and tobacco were guaranteed for quality in 1958; but for wheat, potatoes and maize (where the quantities involved are, of course, considerably larger) the proportions were respectively 50, 30 and 25 per cent. The Spanish authorities have in the last five years intensified their campaign for distributing improved seed and fertilizer; and results can be seen in the modest increase achieved in wheat yields from both irrigated and non-irrigated land.[47] However, fertilizer consumption, though rising, is still at a relatively low

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[43] Individual farms cover roughly 90 per cent of the arable area. The average size of a holding is 5 hectares, and by law no individual holding (except in mountainous and semi-mountainous regions) may exceed 10 hectares.

[44] For the various types of arrangement, see the Appendix to this chapter.

[45] An inquiry in 1956 showed that little more than one-half of the hay crop and only 36 per cent of permanent pasture received any fertilizer at all. With more fertilizer (and also limestone), combined with the improved practices referred to above, it is believed that a 50 per cent increase in the productivity of Irish pastures would not be beyond reach. (See *Economic Development*, *op. cit*., pp. 61-71, and the paper of Walsh, Ryan and Kilroy referred to therein.) These sources emphasize that higher yields of grass and livestock can be achieved without a corresponding increase in input of fertilizer or in land reclamation (i.e. that unit costs would fall), since natural conditions in Ireland are particularly favourable.

[46] See FAO, *Mediterranean Development Project*; and FAO, *Turkish Country Report*, Chapter III, p. 41 *et seq.*

[47] **Yields of wheat (quintals per hectare):**

	1931-1935	*1939-1943*	*1944-1948*	*1949-1953*	*1954-1957*
Irrigated land	16.5	13.3	14.9	16.9	21.3
Non-irrigated land . .	8.5	8.2	8.2	8.1	9.7
National total	8.9	8.4	8.5	8.5	10.5

Source: Servicio Nacional del Trigo, *Veinte Años de Actuación*, Madrid 1958.

level. In Portugal about one-fifth of all wheat seed and almost one-third of all rice seed is now guaranteed for quality and sold at subsidized prices. Yet this development of recent years has not apparently led to any marked improvement in average yields,[48] although in southern Portugal yields of 25 to 30 quintals of wheat in dry-farming are not uncommon. Nor does there seem to have been much progress in reducing the very high proportion of fallow in the two Iberian countries.[49] Yet in Portugal the consumption of fertilizers is as high as in Greece (see Table 9) and, as in that country, most of it seems to be devoted to cereals (40 per cent for wheat alone in 1955/56). Much depends on such factors as how much and what kind of fertilizer is appropriate to the soil in question: it may be that much potential benefit is lost on account of insufficient application, or the use of types or mixtures of fertilizer that are not efficacious in the prevailing conditions.[50] There can be little doubt that waste of this kind does occur in some degree in all countries, particularly since the efficient use of fertilizer requires some technical knowledge — the absence of which is one of the factors impeding its more widespread use among the illiterate or only semi-literate peasantry of Turkey. It must also be borne in mind that the potential gains from irrigation are largely lost if a certain minimum of fertilizer is not effectively applied.

In virtually all areas (with the principal exception of southern Italy) official policy has been to subsidize prices and facilitate credit in an effort to encourage greater fertilizer consumption, which — as is shown in Table 9 — has more than doubled almost everywhere in the last seven years. Dependence on imports has often limited supplies; but the establishment of domestic industries, sometimes utilizing mainly locally-produced materials, and the recent decline in the import price of fertilizers should facilitate the maintenance of the past rate of growth of fertilizer consumption. Yet if full advantage is to be taken of available national resources it is also essential to ensure both timely and efficient distribution of fertilizer to farmers and education in its use. Experience shows that where fertilizer is readily available, rather than a commodity obtained only with difficulty, consumption rises sharply.

It may be that the limited success attained in most countries is the outcome of applying only some, not all, of the ingredients necessary for complete success: or that the combination best suited to conditions in these countries (or at least in the areas which hold out promise of returns) has not yet been worked out satisfactorily. There are, therefore, strong grounds for continuing and intensifying efforts to raise yields from dry-farming parallel with the development of long-term programmes designed to change the present balance of land use; and for concentrating these efforts on areas where the soil and climatic conditions afford a reasonable expectation that this can be done.

(c) Structural problems and price policies

Structural Impediments to Agricultural Growth

The development or propagation of techniques and the complementing of major public investment programmes by individual private investment is more difficult (if not impossible) if there are institutional and structural features of the economy that discourage incentive and deter progress. One aspect of this problem is the system of land tenure and the distribution of farm holdings. Where land reform is still a vital issue, as in Spain and Portugal, it may well be that, however much is invested and however much assistance is extended to him, the landless peasant, who is often a sharecropper, will have little incentive to maintain or improve either his own productivity or that of the land he tills.[51] In the two countries which have registered the greatest progress in yields in recent years — Greece and Yugoslavia — the individual or collective ownership of land by those who work it is assured; indeed this was also a precondition for agricultural growth in the now developed countries of north-western Europe.[52] In southern Italy no further land reform (which at present covers less than 5 per cent of the agricultural area) is envisaged since the major structural impediment remaining is held to be farm fragmentation — often associated, however, with outmoded forms of land tenure.[53] Redistribution of land has been on an even more limited scale in Spain and Portugal, and since a thorough-going reform or the confiscation of large properties has been ruled out, only property which has been either abandoned by its owners or acquired by purchase can be redistributed. The purpose of the National Resettlement Institute in Spain, for example, has been not so much to encourage agrarian reform as to reorganize and improve the land which it has acquired.[54]

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[48] If allowance is made for the officially acknowledged over-estimation of area in the agricultural statistics, a slight upward trend in average yields has probably taken place — a trend which would possibly be more marked were it not for the extension of the area under wheat to inferior soils.

[49] To the extent that there may have been a reduction in Portugal, there are indications that the fallow has been devoted to an extra wheat crop, particularly by non-owner cultivators, who have a less direct interest in soil conservation.

[50] In Greece, much progress has been made since the war in selling mixtures appropriate to the soil largely owing to the fact that sales are made through the Agricultural Bank. (See FAO, *Greek Country Report*, Chapter III, p. 54.)

[51] " One of the principal problems that arise in reviewing the economic situation of Portuguese agriculture is whether the substantial and prolonged effort which the government intends to make with regard to investment in agriculture does not call for equally resolute and prolonged action in the field of agrarian reform if it is to have its full effect. It seems that the rapid and full attainment of the objectives set depends to a large extent on the adoption of the necessary legislation making consolidation compulsory whenever conditions permit, on the adoption of a new law assuring the effective splitting up of large estates and on the adoption of regulations on farm rents." (*Third Report on the Agricultural Policies in Europe and North America*, OEEC, Paris 1958, p. 94.)

[52] " In the Europe of the nineteenth century, the reconstruction of the legal fabric of the land system preceded the modernization both of productive technique and the business side of farming; nor, in the absence of the former, would the two last have been possible ". (R. H. Tawney, *Agrarian China*, Institute of Pacific Relations, Chicago 1939, p. xviii.)

In the long run the impediments to change and faster growth created by the existence of so many uneconomic small farms, and the frequent additional complication of fragmentation into several plots, will have to be overcome. But, as Greek and Yugoslav experience demonstrates, the existing situation need not be regarded as an insurmountable obstacle to progress. Although the problem of farm size and fragmentation is more serious than in the countries of north-western Europe (including Ireland), it should not be overlooked that, even though in some of those countries an important proportion of agricultural land still stands in need of consolidation,[55] they have none the less substantially higher productivity levels and yields.

Incentives and Policies [56]

Another means of inducing an increase in the supply of agricultural products and a change in the pattern of production is that of incentives, including price policies, to the individual producer. If they have neither the prospect of making profits nor freedom to dispose of such profits as they choose, farmers are not likely to make special efforts to raise marketable output — as the earlier experiences of Spain and even more of Yugoslavia (in the period of forced collectivization and compulsory deliveries) amply illustrate.[57]

Price support policies have generally done most to promote the cultivation of cereals, and particularly wheat, but have as a rule neglected the livestock sector. Such policies have been pursued partly for balance-of-payments reasons, since it was desired to curtail or eliminate imports of essential foodstuffs, or (for example, Yugoslav maize and Turkish wheat) to achieve a surplus for export. A further motive has been partly political, partly social: the desire to give a minimum income support to the poorer peasants, most of whom depend for their subsistence almost exclusively on wheat. It is questionable whether the centralized purchase, at fixed prices, of all quantities offered for sale, as practised in Greece and Turkey, or other systems (such as the compulsory delivery at fixed prices of the total wheat crop in Spain) have been of greatest benefit to the smallest farmer or whether they have not needlessly subsidized larger cultivators.

As production has grown in response to support policies the problem of achieving financial stability has been complicated; either it has been less simple to withdraw from consumers (by raising retail prices in line with the higher governmental purchase or guaranteed prices) what has been given to producers, or else (as with wheat in Turkey and with butter in Ireland, at certain periods) it has been necessary to sell export surpluses at a direct loss to the budget. The policies pursued have largely succeeded in raising the output of one or two key commodities; but this result has been attained in most countries mainly by the easier solution of allotting more land to their cultivation rather than by increasing yields. As a result, progress towards the more balanced use of

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[53] For a detailed discussion of the problems of land tenure, see Istituto Nazionale di Economia Agraria, *I tipi di impresa nell' agricoltura italiana*, Rome 1951, p. 34 *et seq*. For example, one handicap to greater productivity of grassland arising in many cases from the present contractual relationship between owners and cultivators is the widespread system of renting pastures for one year only, whereas three years are normally necessary for efficient operation. (See *I problemi della montagna nell'Italia meridionale*, Cassa per il Mezzogiorno, Rome 1955, p. 55.)

[54] *Fourth Report on Agricultural Policies in Europe and North America*, OEEC, Paris 1960, Vol. 1, chapter on Spain, para. 39.

[55] Cf. *European Agriculture* FAO/ECE, Geneva 1954, Table 10; and *The Small Family Farm*, EPA/OEEC, Paris 1959

[56] The following is a general discussion of the effects of past policies on production. For a more detailed examination and discussion of policies pursued in individual countries, reference should be made to the annual reports on agricultural policies in Europe and North America, published by the OEEC, and to *National Grain Policies*, FAO, Rome 1959.

[57] " Action on prices being not in itself sufficient to secure the results desired by the government, it has been necessary to apply direct control to the areas under cultivation (maximum area for beet and tobacco, minimum area for wheat). The reason for these measures has been that the price level fixed or guaranteed by the government for a limited number of products was determined in the light of essentially monetary considerations, without sufficient reference to the relation of prices and to changing trends in demand. As the development of production and market stability are among the chief aims of Spanish policy, the idea of ' adequate incomes for farmers ' is only taken into account in so far as it facilitates the achievement of these aims. The resulting inequality of conditions for farmers partly explains the rather discouraging results as regards productivity despite the considerable progress made since the end of the Civil War. The inadequate production and consequent failure to meet increased demand, together with the fact that Spain has not at present sufficient means of payment to allow extensive imports of foodstuffs, have constituted one of the principal causes of inflationary pressure." (*Agricultural Policies in Europe and North America, Price and Income Policies*, OEEC, Paris 1957, p. 250.)

In Yugoslavia, collectivization and compulsory deliveries at low prices were intended to ensure the largest possible transfer of purchasing power from the agricultural to the industrial sector, for capital accumulation. But agricultural output did not increase; and it was not until forced collectivization and compulsory deliveries were abandoned and prices received by farmers made more favourable, with suitable market guarantees, that the peasant became interested in collaborating with the cooperatives to attain greater agricultural productivity.

TABLE 11

Some per capita comparisons between the agricultural sector in southern Europe and Ireland and in industrial western Europe

Index numbers : industrial western European countries [a] = 100

Country or region	Total agricultural output	Output of livestock products	Bread grains	Coarse grains	Total cereals	Fruit	Vegetables	Agricultural area		Livestock units
								Total	Rough grazing [b]	
	1952/53-1953/54		1956-1957					1953-1957		
Greece	80	35	130	50	90	395	155	110	445	170
Ireland	190	255	125	190	160	40	100	415	100	495
Southern Italy	65	25	135	15	70	400	210	105	255	60
Portugal	65	30	75	45	60	175	120	145 [c]	..	80
Turkey	90	35	255	115	180	365	130	370	330	280
Spain	..	..	130	65	95	..	..	190	905	90
Yugoslavia	..	..	110	190	155	..	..	145	220	145
Southern Europe and Ireland	..	..	150	90	120	..	..	205	370	155
Southern Europe	..	..	150	85	115	..	..	200	395	145
Southern Europe, excluding Spain and Yugoslavia	80	30	175	65	115	350	155	220	315	170

Sources and methods : See Appendix B.

NOTE. — Figures are rounded to the nearest 5 or 10.

[a] Including northern Italy.

[b] Per unit of livestock.

[c] Including rough grazing.

land between bread and coarse grains, and between bread grains and livestock and fodder production, has been hampered.

For that part of the subsistence population for which the only solution must consist of long-term measures of resettlement or migration from agriculture, it would seem desirable to initiate policies that will encourage both the limitation of wheat acreage as yields rise, and the introduction of more coarse grain and fodder, etc., into the rotation. Although modifications have been made in recent years,[58] price policies have seldom been designed to accomplish this objective, but directed rather to the more immediate aim of preventing the budgetary burden from getting out of hand as the total production of price-supported commodities increased.

Turkey has experienced the greatest difficulty in inducing changes in the pattern of production, since the sharp growth of population had made an expansion of wheat output of first priority, whereas — in spite of increased mechanization — yields have scarcely risen. Fertilizer supplies have also been limited. The raising of the support price for wheat in 1957 and again in 1959, both absolutely and (in 1957) relatively to coarse grains, though no doubt motivated by strong social and other considerations, has scarcely been a step in the direction of achieving more balanced land use.

(d) Policies for further expansion

More vigorous policies appear to be called for, and will indeed be an indispensable concomitant of long-term investments aimed at achieving the necessary changes in the pattern of land use and the structure of output. Now that self-sufficiency in bread-grains and some other key crops has been all but attained in southern Europe, the emphasis of policy can be redirected towards inducing a greater increase in livestock produce and bringing about the consequent changes in the pattern of crop cultivation. Although the level of income per capita in southern Europe is only about one fifth of that of industrial western Europe, the disparity in agricultural output per capita is far smaller: per capita output of all agricultural produce in southern Europe is only one-third (or less) below that of industrial western Europe (see Table 11); and in Ireland it is actually higher (except for fruit). Southern European levels could be brought very close to those at present prevailing in the industrial countries of western Europe by a per capita rate of growth of output over ten or twenty years of 2-3.5 per cent per year.

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[58] Attempts in Greece have not been very successful. The increased price support for coarse grains in Spain and measures to achieve by regulation a minimum area for coarse grain and fodder (and in some cases a minimum weight of livestock per hectare) have so far had only a limited impact and in any event do not touch the problem of the vast majority of small cultivators. Since 1956 greater stress has been laid on reducing costs in Irish agriculture by limiting the support given to wheat and barley production. Several food subsidies to consumers were discarded in 1957, and the subsidy on butter exports has been reduced. In Yugoslavia price support for wheat and maize is being reduced as costs fall as a result of higher yields.

It is essentially in livestock products that the gap is strikingly wide. Per capita output of bread grains in southern Europe (at present the principal element in the national diet), and of fruit and vegetables (the major export products) ranges from 10 per cent higher to more than twice that in industrial western Europe; whereas the level of livestock output is only one-fourth to one-third as high. The future per capita demand for bread grains and for fruit and vegetables in southern European countries seems unlikely to rise much beyond present levels, so that an increase in their output in line with population growth (i.e. 1-2 per cent per year) and with the expansion of export demand should prove sufficient. As yields rise, owing both to the fuller exploitation of dry-farming possibilities and the gradual extension of irrigation, it should be possible to meet total national wheat requirements from a reduced area. It should also be possible to release more land in areas with higher rainfall for the cultivation of barley; and to do the same for maize, sorghum and green fodder. Such a shift in the cropping pattern would correct the present deficiency of animal feed and thus provide the basis on which the output of animal husbandry could be expanded. At the same time, less productive land could be returned to forestry. In some countries encouragement of higher (and more efficient) production of cotton and other crops with promising possibilities for export, or for import substitution, would also be desirable.

On the assumption of an income elasticity greater than unity and an annual rise in total income of 5 per cent, domestic demand for livestock products in southern Europe would rise two-and-a-half to three times in the next 20 years, and to achieve an increase in output of this order of magnitude calls for a determined effort. In terms of the per capita availabilities of agricultural land (excluding rough grazing), numbers of livestock units, and hectares of grazing area per unit of livestock, the countries of southern Europe are better endowed than their industrial neighbours; but the productiveness of the land and of livestock is very much lower. To raise the yields from, and improve the quality of, livestock is a more difficult undertaking than for crops — particularly in mountain areas, where animal husbandry in conjunction with crop farming is especially difficult and winter feeding presents special problems. Erosion and deforestation have destroyed natural pastures, which are in any event inferior to those of north-western Europe since the climate is less suitable. Shortage of fodder (while yields are low and the area under fodder crops restricted) and limited supplies of imported concentrates add to the deficiencies of natural grazing and result in inadequate feeding of livestock.[59] The differences in feed per unit between southern European countries (and indeed Ireland, where there is, however, the compensation of fodder from good natural grazing) and the countries of north-western Europe go far towards explaining the differences in carcase yields of meat and in milk yields. But conditions in southern Europe are inferior above all in terms of quality — both of pasture and of livestock.

Improving the quality of livestock implies better feeding and pasture management, which would mean raising fodder output from dry and irrigated farming by improved cropping, using more fertilizer, and the other means discussed above.[60] And it would also involve achieving greater integration of crop farming and livestock rearing, so that more livestock could be carried on arable farmland — at the same time preserving the natural grazing value of the pasture. If yields of wheat from dry-farming could be raised, some of the land at present irrigated could then be turned over to green fodder. Greater productivity in animal husbandry would also require the development of better breeds through crossing with high-quality foreign varieties; and such ancillary but very necessary measures as investment in installations, storage, marketing, refrigeration and transport facilities, and far greater skill in livestock management.

The change in economic policies needed to encourage greater and better livestock production depends in part on institutional features governing farm structure and in part on the present separation between crop and livestock farming in different countries. But to the extent that subsidies and credits can be provided, it would seem desirable gradually to transfer financial resources to the cultivation of those crops that are necessary for animal feed (and in some cases to industrial crops, such as cotton) and to investment for livestock farming. In practice the distinction may not always be clear-cut (and in particular price support and marketing schemes for livestock produce are more difficult than for crops); but methods for facilitating and making financially more attractive investment in pedigree livestock, silos and other necessary amenities and in developing other promising lines, such as poultry and industrial crops, can no doubt be found.

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[59] "A paradoxical situation exists: the range lands are overgrazed, but livestock output is far below what it could be, because fodder resources have not been developed." (FAO, *Mediterranean Development Project*, p. 90, where the ways and means of increasing livestock production are discussed in more detail.) In view of the importance of adequate supplies of concentrates for raising the output of animal products as economic development proceeds, it would be desirable to give a high priority to imports of such feed.

[60] See also *Pasture and Fodder Development in Mediterranean Countries*, OEEC, Paris 1951.

Increasing attention is in fact being paid to the livestock sector in most countries.[61] In Greece it is intended first, to enlarge credits for improving breeds and the fattening of animals and secondly, to subsidize the cultivation of fodder plants and in general to attempt to shift the emphasis of public policy from cereals to meat, milk and sugar-beet.[62] In Yugoslavia the lessons from experience gained with cereals and sugar-beet are to be applied to the livestock sector and to fruit and vegetables. Investment in pedigree livestock has been increasing, and in 1959 was estimated to account for about 8 per cent of total public agricultural investment. Systematic fattening, both on state and co-operative farms and on the private farms with which they collaborate, has been and is being progressively extended. Pig and poultry numbers have increased by more than one-half since 1948 — the former to nearly twice the pre-war level. As a result of all these measures, output of livestock products has, in the last four years, expanded by 27 per cent — or in line with the growth in output of crops.[63] In order to minimize the cost of investment open stables have been constructed and silage simplified. Although this has resulted in some loss in milk output and higher fodder consumption, compared with conventional methods, the system provides more manure and needs less manpower, while the incidence of tuberculosis has been reduced and the average weight of animals increased.

While in southern Europe the expansion of output of livestock produce is necessary mainly in order to meet a foreseeable rise in domestic demand, raising output and incomes in Irish agriculture depends to a very great extent on the possibilities of increasing exports, particularly of livestock produce; for per capita consumption of most agricultural products in Ireland (with the principal exception of cheese) is already high. The possibilities are therefore tied to prospective demand in foreign countries and to the ability of Irish producers to enter or hold (without public subsidy) those markets, particularly in the preferential trading areas in western Europe of which Ireland is not at present a prospective member. Ireland's trading ties, both in agricultural and in industrial products, are essentially with the United Kingdom, and Irish farmers benefit from some of the price guarantees extended to British producers. An expansion of agricultural exports to the United Kingdom depends partly on the policies of domestic support to be pursued in that country and partly on trading arrangements at present under negotiation between Ireland and the United Kingdom.[63a] An expansion of exports to continental western Europe would affect shipments of prepared meat (carcase beef, pork and bacon, etc.) rather than of live animals — the traditional export to the British market — and would help to make fuller use of existing processing capacity and to reduce average processing costs. It is planned to increase milch cow numbers (which have been virtually stable for a century) by one-fourth in the next five years, on the assumption that there will be a market for the additional produce and that the policies pursued in respect of grass management will reduce unit costs. If domestic and foreign trade policies in other countries of western Europe should prove an obstacle to the expansion of Irish agricultural exports, a reconsideration of the objectives of agricultural policy in Ireland would be necessary.

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[61] In addition to those measures referred to in the text that have been taken in Greece and Yugoslavia, mention may also be made of the plan for agriculture in Italy, the broad lines of which were officially endorsed in January 1960, and of the present cattle development scheme in Ireland, by which, through co-operation between banks and farmers' organizations, credit has been made available for the purchase of accredited breeding heifers.

[62] The preliminary five-year plan, however, allocates only 2 per cent of total direct state investment in agriculture to the expansion of the animal husbandry sector. The first measures were announced in October 1959; they include the subsidization of winter fodder crops where these replace wheat cultivation, and a reduction of the interest rate from 8 per cent to 2 per cent (and an extension from five years to eight years of the repayment period) on loans for cattle purchases. Subsidies have also been granted for the extension of the area devoted to cotton — a valuable labour intensive and foreign exchange earning crop.

[63] For further details, see the Appendix to this chapter.

[63a] It also depends on the complete eradication of bovine tuberculosis in Ireland.

3. INDUSTRIAL DEVELOPMENT

Without fast industrial growth and a broad industrial base in the countries of southern Europe and in Ireland, under-employment — both rural and urban — cannot be overcome, nor can the vulnerability to sharp harvest fluctuations of both the domestic economy and the balance of payments be reduced or the gap between import requirements and export proceeds narrowed. It is the experience no less of the industrialized than of the industrializing countries that income per head in industry is much higher than in agriculture; and industrialization itself helps to raise productivity and incomes in agriculture and services by absorbing labour and raising domestic demand for agricultural products. Since exports from southern Europe and Ireland still consist predominantly of agricultural commodities these countries are disadvantaged by the generally low income elasticity of demand for such commodities. For these less industrialized countries to benefit more in the future from international trade and specialization, the diversification of their production and the development of industrial exports is plainly necessary. It is against this setting that the present section reviews the trend and structure of industrial growth during the past two decades[64] and its relationship to industrial investment and employment; the policies that have been pursued are then examined in the light of the requirements for future growth.

The volume of industrial output has nearly doubled during the last 20 years in Ireland and Spain — and probably also in Portugal, though precise data are not available. It rose almost two-and-a-half times in Greece, and more than tripled in Turkey and Yugoslavia (see Table 12). By 1950 industrial output had everywhere surpassed pre-war levels and the rate of growth had begun to accelerate everywhere, except in Ireland.[65] As can be seen from Table 12, in the last eight years the average rate of industrial growth has come close to 9 per cent per annum, which is much higher than the growth either of other sectors of these economies or of industrial output in the rest of western Europe.[66]

Despite recent progress, however, industrialization is not yet far advanced in most of these countries, and the level of industrial output per head is only one-fourth of that of the industrial countries of western Europe. The contribution of industry to the gross national product in the more industrialized countries of western Europe is about 50 per cent; by 1957-1958 it had reached 40 per cent in Yugoslavia, much the same proportion in southern Italy, about one-third in Portugal and Spain and no more than 20 to 30 per cent in Ireland, Greece and Turkey.[67] Moreover, in most of these latter countries industry still accounts for only one-fifth to one-fourth of the total labour force (and one-tenth in Turkey), in contrast to 40 per cent or more in the industrial countries.[68] Even the high rates of industrial growth of the last decade have not sufficed to provide employment adequate for both the natural increase in population and the transfer of labour from agriculture in Portugal and Turkey. In consequence, the numbers engaged in agriculture in these two countries have not declined; and the decline in Ireland is mainly a result of a high rate of emigration.

A significant part of what is called 'industrial' manpower in southern Europe is employed in small-scale handicraft units where both productivity and the amount of capital used are low. In Turkey, for example, about 55 per cent of manpower in manufacturing industry was employed in 1950 in establishments with ten workers or less,[69] and for southern Italy the corresponding proportion in 1951 was some 50 per cent, against 25 per cent for the industrial north.[70] In all these countries, however, the proportion of total industrial output originating in medium and large-scale enterprises has appreciably expanded, whereas output from small-scale undertakings has remained almost stationary. While the annual growth of total industrial employment in Turkey averaged 5 per cent between 1950 and 1955, employment in medium and large-scale enterprises grew at about 8 per cent.

If it could be assumed that the recent rate of expansion will continue during the next twenty years, the per capita level of industrial output in southern Europe would reach that now prevailing in the industrial countries of western Europe.[71] But such an assumption may not be well-founded, for this rate has not recently been maintained in all countries. In Turkey and Spain, serious external and internal pressures have emerged in the last three years and the policies introduced to correct them have slowed down the expansion — at least for the time being. Industrial output in Greece has increased but little since June 1958 and a relatively slow expansion is feared in the next few years unless either private investors take a keener interest in Greek industry or public initiatives are successfully pursued and the rigidities of the

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[64] A limited basis for industry was already laid in Spain, Portugal and southern Italy by the beginning of the twentieth century. For a detailed historical review, see *Economic Survey of Europe in 1953*, p. 76 *et seq.*

[65] Irish industry expanded at a fairly rapid rate between 1945 and 1950, but since then growth has been rather limited.

[66] For southern Italy it is estimated that the rate of industrial growth in recent years was not appreciably higher than in the north (see Presidenza del Consiglio dei Ministri, *Riconsiderazione dello " Schema Vanoni " nel quinto anno dalla sua presentazione*, Rome 1959, p. 12).

[67] This method of measuring the degree of industrialization may have an upward bias because of the low productivity of agriculture and services. In southern Italy, for instance, the annual income per person employed in services was estimated in 1957 at $712, as against $1,067 in industry. In industrial countries income per head in services is generally higher than in industry — e.g. respectively $1,780 and $1,520 in northern Italy in 1957.

[68] In Spain at the turn of the century, and in the other countries during the twenties, the proportion was about 15 per cent.

[69] Industrial employment, as recorded in the industrial census, was only 58 per cent of the " industrial labour force " as recorded in the population census, which suggests that a part of production is carried out by migrant craftsmen, or by persons working in cottage industry, performing contract work at home, or working in small rural workshops not enumerated in the industrial census. (See UN, *The Development of Manufacturing Industry in Egypt, Israel and Turkey*, New York 1958, p. 28 *et seq.*)

[70] Yugoslavia is an exception, in that two-thirds of its industrial labour force is employed in establishments with more than 500 workers, and 92 per cent in establishments with more than 125 workers.

[71] The rate during the past decade in southern Europe has been high by any standards. The following rates of industrial growth took place in the period of rapid industrialization of the comparative newcomers to the ranks of industrial countries:

		Annual percentage rate
Sweden	(1880 to 1900)	8.1
Italy	(1900 to 1913)	5.2
Russia	(1880 to 1900)	6.4
Japan	(1913 to 1938)	7.0

Sources : League of Nations, *Industrialization and Foreign Trade*, Geneva 1945; and OEEC, *Industrial Statistics 1900-1957*, Paris 1958.

TABLE 12

Structure and growth of industrial output by sectors in southern Europe and Ireland

Percentages

Country and sector	Share of total output			Increase in volume		Annual rate of growth of output	
	1938	1950	1958 [a]	1938 to 1958 [b]	1950 to 1958 [c]	1938 to 1958 [b]	1950 to 1958 [c]
Greece Total	*100*	*100*	*100*	*138*	*110*	*4.4*	*9.7*
of which:							
Mining	4	1	4	120	832	4.0	32.2
Metal-making	—	—	1	200	214	5.6	15.4
Metal-using	12	5	7	23	199	1.1	14.7
Chemicals	17	14	14	96	109	3.4	9.6
Textiles	21	26	19	122	56	4.1	5.7
Food, drink and tobacco	21	20	16	82	71	3.0	7.0
Electricity	9	19	21	468	170	9.6	13.2
Ireland Total	*100*	*100*	*100*	*96*	*19*	*3.4*	*2.2*
of which:							
Mining	3	3	4	203	66	5.7	6.5
Metal-using	11	14	15	170	21	5.1	2.4
Chemicals	5	4	4	83	40	3.1	4.3
Textiles	8	9	11	167	41	5.0	4.4
Food, drink and tobacco	39	36	32	59	6	2.4	0.7
Electricity	2	3	6	431	106	8.7	9.0
Spain Total (excluding electricity)	..	*100*	*100*	*92*	*71*	*2.3*	*6.9*
of which:							
Mining	..	44	36	86	52	2.2	5.4
Metal-making	..	6	6	60	92	1.7	8.5
Chemicals	..	20	24	158	126	3.4	10.7
Textiles	..	15	12	28	51	0.9	5.3
Electricity	..	..	..	510	135	6.7	11.4
Turkey Total	*100*	*100*	*100*	*223*	*81*	*6.4*	*8.8*
of which:							
Mining	23	26	23	224	59	6.4	6.9
Textiles	42	37	30	130	47	4.5	5.6
Food, drink and tobacco	26	29	33	322	105	7.9	10.8
Yugoslavia Total	*100*	*100*	*100*	*244*	*101*	*6.4*	*9.1*
of which:							
Mining	16	16	13	171	64	5.1	6.4
Metal-making	13	11	14	271	165	6.8	13.0
Metal-using	8	14	17	615	161	10.3	12.5
Chemicals	3	3	5	421	224	8.6	15.8
Textiles	18	16	12	118	42	4.0	4.5
Food, drink and tobacco	13	10	9	157	94	4.8	8.6
Electricity	4	5	8	531	204	10.2	14.9

Sources and methods : See Appendix B.

NOTE. — The percentage shares in total output make no allowance for changes in relative prices. They have been derived by applying index numbers of output at a given year's prices to the percentage distribution in 1953. For further details, for alternative index numbers for Greece (from 1959) and Spain, and for an index beginning 1956 for Portugal, see Appendix B.

[a] 1957 for Turkey.

[b] Spain: 1930 to 1958; Turkey: 1938 to 1957.

[c] Turkey: 1950 to 1957.

industrial structure removed. Hence one of the salient issues facing some countries is that of sustaining the momentum of the past eight years; in others, such as Portugal and Ireland, the main task is the attainment of faster growth.

(a) Developments in the major sectors of industry

The historical process of industrialization indicates a general trend towards a decline in the relative share of the consumer-goods industries and a rise in that of the intermediate and capital-goods industries.[72] This change is gradually taking place in southern Europe and Ireland. As is shown in Table 13, although the absolute volume of consumer-goods output increased between pre-war and 1958 in the three countries for which statistics are available, its share in total industrial production has fallen (though in Ireland it is still by far the predominant share). In spite of considerable differences in economic structure and in policies pursued, in all three countries the annual rate of growth of the intermediate and capital-goods sectors combined was almost twice as high as that of the consumer-goods industries.[73] From the growth of the main branches shown in Table 12, it can be deduced that a similar trend was also experienced in the other countries.[74] This transition is also reflected in the changes in the structure of employment and output that have taken place.[75]

Consumer-goods Industries

Traditional consumer-goods industries. — As elsewhere, the industrial manufacture of textiles, leather goods, and the processing of food, drink and tobacco have generally constituted the first stage of industrialization in the countries under review.[76] Of the many factors that have favoured the early establishment of these branches the following are particularly important: the availability of local raw materials; the comparative ease of transition from handicraft to factory organization; the need for no more than straightforward technical skills; and possibilities of easy marketing and of import substitution under tariff protection. Of course, as the process of industrialization spreads to other branches, these considerations lose their overriding importance.

Between the twenties and the fifties employment in the textile, clothing and leather industries, taken together, fell in relation to employment in total manufacturing in all countries except Turkey;[77] but it still probably constitutes nearly 40 per cent of the total in Portugal and Turkey, and between one-third and one-fifth in the other countries. Yet this long-term trend understates the relative decline (since 1938) of the textile industry in Turkey and its recent expansion in Ireland. There has been a similar decline in the importance of the food, drink and tobacco industry — apart from Ireland, where it is still a major industry.[78] In absolute terms, output in these industries has continued to increase since 1950 (see Table 12). Both internal and external factors have played an important role in this development. The faster growth of textile output than of domestic textile consumption has been due to a substantial substitution of imports, accompanied in some cases by an expansion of exports. Yet, although equipment has been modernized (with the notable exception of Spain),[79] higher output has been achieved mainly through an increase in capacity, so that output per unit of capacity remains in all countries, except Yugoslavia and Greece, significantly below pre-war levels (see Table 14). This under-utilization of capacity suggests that the further expansion of output could for some years be attained by

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[72] Dr. Walther Hoffmann distinguishes three stages of industrialization. In the first, the ratio of output of consumer goods to that of intermediate and investment goods is 5 (±1) : 1, in the second 2.5 (±1) : 1, and in the third 1 (±0.5) : 1. (See *Stadien und Typen der Industrialisierung*, Jena 1931, pp. 124 and 178-181.) In *The Grow'h of Industrial Economies* (Oceana Publications, New York 1958, pp. 2-3) he distinguishes a fourth stage, with an even lower ratio, and adds: " There are certain striking similarities between the process of growth of various national economies. Our main argument is as follows: whatever the relative amounts of the factors of production, whatever the location factors, whatever the state of technology, the structure of the manufacturing sector of the economy has always followed a uniform pattern ".

[73] The ratio for other countries in the period of their development was as follows:

Great Britain	1851 to 1881	1.9
	1881 to 1907	1.3
	1907 to 1935	1.5
France	1861-1865 to 1896	2.7
Germany	1860 to 1880	2.2
	1880 to 1900	1.5
	1900 to 1913	1.5
Italy	1886 to 1913	2.5
United States	1880 to 1900	1.6
	1900 to 1927	1.4
Soviet Union	1928 to 1940	1.8
	1940 to 1955	1.5
	1959 to 1965 (Plan)	1.3

Sources : See Appendix B.

[74] An exception must be made for Turkey, where a sharp expansion of the food, drink and tobacco industries (and particularly sugar) in recent years appears to have raised the share of consumer-goods industries in the total.

[75] The change in the industrial structure between 1950 and 1958 for four of the less industrialized countries for which suitable data are available is nearly double that for the OEEC countries as a whole:

Changes in the structure of production, 1950 to 1958 [a]

Greece	21
Ireland	10
Turkey [b]	26
Yugoslavia	20
Average of above four countries	19
Average for OEEC member countries combined	10

Sources : See Appendix B.

[a] Cumulative total of numerical differences between percentage shares in total industrial output of selected branches in 1950 and 1958. The branches included are : food, drink and tobacco, textiles and clothing, metal-making, metal-using, chemicals and other manufacturing.

[b] Change between 1950 and 1957, based on shares in total value added.

[76] Cf. Walther Hoffmann, *The Growth of Industrial Economies*, *op. cit.* p. 68.

[77] See the SURVEY for 1953, p. 174.

[78] As has been observed, the tendency in Turkey has been reversed in post-war years, mainly owing to the Government's policy of setting up new sugar refineries.

[79] Towards the end of 1959 a commission of experts, appointed by the Spanish Textile Association, presented a plan for the reorganization and modernization of the textile industry. It recommends scrapping a large part of existing machinery (with compensation from public funds), reducing the labour force and creating a Cotton Textile Fund for medium- and long-term capital. It further proposes the liberalization of imports of textile machinery not manufactured in Spain.

TABLE 13

Industrial output by type of product in Greece, Ireland and Yugoslavia

Percentages

Country and type	Share of total output			Increase in volume		Annual rate of growth of output	
	1938	1950	1958	1938 to 1958	1950 to 1958	1938 to 1958	1950 to 1958
Greece							
Consumer goods . . .	56	54	43	78	70	3.1	6.9
Intermediate goods . .	38	41	50	196	158	5.9	12.6
Investment goods . . .	6	5	7	143	196	4.8	14.5
Total	100	100	100	138	110	4.4	9.7
Ireland							
Consumer goods . . .	82	75	71	60	7	2.4	0.8
Intermediate goods . .	12	16	19	161	27	4.9	3.0
Investment goods . . .	6	9	10	245	31	6.5	3.5
Total	100	100	100	96	19	3.4	2.2
Yugoslavia							
Consumer goods . . .	34	30	25	135	56	4.6	5.7
Intermediate goods . .	58	57	58	225	97	6.4	8.8
Investment goods . . .	8	13	17	610	152	10.9	12.3
Total	100	100	100	244	101	6.4	9.1

Sources and methods: See Appendix B.

NOTE. — The sectors are defined as follows: Consumer goods: food, beverages, tobacco, textiles, clothing, shoes, printing, part of chemicals, etc. Intermediate goods: mining, rubber, non-metallic mineral products (building materials, some chemicals, etc.) Investment goods: machinery, transport equipment, electro-technical equipment. See also the note to Table 12.

TABLE 14

Installed capacity and its utilization in the cotton textile industry in southern Europe

Country	Capacity			Output					
				Total			Per unit		
	Pre-war	1952 or 1953	1957 or 1958	Pre-war	1952 or 1953	1957 or 1958	1957	Pre-war	1957 or 1958
	Yarn								
	Thousand spindles			*Thousand tons*			*Kg. per spindle*	Index (1952 or 1953 = 100)	
Greece	320	367	403	17	22	22	55	90	93
Portugal	444	875	998	22	35	35	35	122	98
Spain	2 000	2 226	2 469	. .	60	61	25	. .	93
Turkey	104	391	686	23	34	56	81	249	92
Yugoslavia	196	395	390	19	28	44	113	137	161
	Fabrics								
	Thousand looms			*Million sq. m.*[a]			*Thousand sq. m. per loom*[b]	Index (1952 or 1953 = 100)	
Greece	5.3	9.3	12.8	32	103	109	8.5	54	77
Portugal	15.1	27.0	31.2	118	208	183	5.9	101	76
Spain	66.6	66.0	66.1	. .	403	355	5.4	. .	88
Turkey	1.9 *	6.1	15.1	108	182	306	20.2[b]	197 *	68
Yugoslavia	11.6	13.8	14.9	111	112	207	13.9	117	170

Sources: UN, *Statistical Yearbook*; OEEC, *Industrial Statistics, 1900-1957*, Paris 1958.

[a] Where original data were in kilogrammes, conversion has been made on the basis of 1 kg. = 7.3 sq. m.

[b] In Turkey 75 per cent of the looms are automatic; the proportion is less than one-half in Greece and Yugoslavia and about one-sixth in Spain and Portugal.

fuller use of existing equipment.[80] Moreover, Greece and Turkey, two of the few European countries where cotton is cultivated, and Ireland, are still net importers of textile manufactures.[81] With appropriate policies for the reorganization of small units and other measures to achieve cost reductions, some of these countries would be well placed for developing an export trade, based on the manufacture of cotton cloth, even with the industrially developed markets of Europe.

All countries are net exporters of food, beverages and tobacco, though the ratio of exports to production appears to be small,[82] except for certain, very specialized, sectors such as tobacco and dried fruit in Greece and Turkey, tinned fish in Portugal, and chocolate crumb in Ireland. In Turkey the output of sugar has risen from 83,000 tons before the war to 350,000 tons in 1958 and some refined sugar has been exported in 1959.[83] Processed foods are already an important Yugoslav export, and the expected rise in the output of animal products, particularly of meat, should make its share in total exports even greater in the future. There is similarly scope for such export industries in Ireland (where they at present principally supply the home market), particularly for exports of fish and fruit and vegetables — provided that production and marketing methods are improved.[84] In southern Europe the climate favours the production of many vegetables and fruits that are not cultivated in the industrial countries of western Europe and in which there is a potentially expanding market for tinned and frozen foods.[85]

New industries. — While the traditional consumer-goods industries have been declining in relative importance, a beginning (though rather modest, except in Spain and Yugoslavia) has been made to establishing new light and durable-goods industries.[86] Although output data are very scanty, it can be seen from Appendix Table XXII that the countries considered here are gradually expanding their capacity — especially in chemicals, engineering and transport equipment; but in most of them the lion's share of domestic needs is still satisfied by imports. Given the high income-elasticity of demand for many of these products, and their ' demonstration effect ', an increase in domestic output appears essential if the call on imports is not to become excessive in relation to other claims on foreign exchange resources. Indeed, the import of so many non-essential consumer goods is already causing some concern in Greece, which has a high degree of import liberalization.

Intermediate-goods Industries

Mining. — About 1 per cent of gross national product in Greece and Portugal, 2 to 3 per cent in Turkey, and 4 per cent in Yugoslavia is generated by the mining industry; but its contribution to export income is proportionately much greater.[87] After a promising expansion of this industry at the beginning of the century[88] (chromium in Turkey, iron ore, bauxite and lead in Greece and Spain, sulphur in southern Italy and, after the first world war, lead, copper and bauxite in Yugoslavia and wolfram in Portugal), there ensued a slow-down under the three-

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[80] A somewhat paradoxical feature of traditional industries in southern Europe is the existence of unused capacity which is not activated to meet expanding demand. (See also Chapter VIII, section 2.) Although no precise information is available about the number of shifts worked, the comparative levels of output of yarn per spindle and cloth per loom suggest that a considerable part of the equipment in these countries (except Yugoslavia) is used for only one shift. A further handicap to more efficient production is the wide diversity of textile products produced in small units and relatively small quantities.

[81] Percentage share of manufactured textiles, including clothing and footwear, in total imports and exports in 1956-1957:

	Greece	*Ireland*	*Portugal*	*Spain*	*Turkey*	*Yugoslavia*
Exports	1.0	4.8	16.0	2.8	—	5.9
Imports	6.7	7.8	2.8	0.4	3.0	3.6

Source : UN, *Direction of International Trade.*

[82] In Spain, for example, it is 2 per cent (see *La Estructura de la Economia Española*, Instituto de Estudios Políticos, Madrid 1958, Table 1).

[83] About 30,000 tons have been exported to Israel and Tunisia. Contracts for a total of nearly 20,000 tons have been concluded for 1960 with Israel, Libya and Jordan. (See Türkiye Is Bankasi, *Review of Economic Conditions*, Ankara, October 1959.)

[84] As was suggested in the preceding section, Ireland might stand to gain from an expansion of carcase meat exports to continental western Europe. A conversion of the live cattle trade with the United Kingdom into one of predominantly dressed meat, while desirable from many points of view, would involve a major departure from existing institutional arrangements (including the present price guarantees for store cattle) and would require overcoming entrenched trading interests in both countries. (For a fuller discussion of the pros and cons, see *Economic Development*, *op. cit.* pp. 87-91.)

[85] Cf. the Survey for 1953 (p. 200 *et seq.*); the Survey for 1958, Chapter V, p. 28; and FAO, *Mediterranean Development Project*, p. 55.

[86] Both Spain and Yugoslavia now produce bicycles and a wide assortment of household appliances. All the countries studied produce some pharmaceuticals and detergents: Portugal, for example, which had no such domestic industry before 1950, manufactured 61,000 tons of ordinary soap in 1957. The manufacture of plastics has been introduced in most countries — notably in southern Italy, where it is a by-product of the heavy petro-chemical industry. Production of such light electrical goods as bulbs, sockets, plugs, distributors and tubes, and of plastic containers is also fairly general. Data on output of radios are given in Appendix Table XXII and in addition Ireland produced some 12,000 television sets in 1957. A start has also been made in some countries (e.g. Ireland) to the production of more complex household appliances, such as refrigerators, washing machines and vacuum cleaners. (In Greece these products are mainly assembled from imported parts, but stoves are now fully home-produced.) Vehicle assembly plants exist in Spain, Ireland, Yugoslavia and Turkey. Finally, while the paper industry has expanded in all countries, the newsprint industry was introduced recently in both Portugal and Turkey.

[87] Exports of mineral products in 1956-1957 were some 12 per cent of total exports in Turkey, 8 per cent in Greece, 28 per cent in Spain and 18 per cent in Yugoslavia.

[88] See the *Economic Survey of Europe in 1953*, p. 164 *et seq.* for a more detailed discussion.

TABLE 15

Mining production in southern European countries

Index numbers, 1953 = 100

Period	Greece		Southern Italy		Portugal		Spain		Turkey		Yugoslavia	
	Coal mining	Other mining	Coal mining	Other mining	Coal mining	Other mining	Coal mining	Other mining	Coal mining	Other mining	Coal mining	Other mining
1901-1906	..	30 [a]	..	..	..	..	23	154	8	10	..	..
1907-1913	..	95 [b]	2 [c]	92 [c]	..	..	30	167	14	7	..	..
1914-1920	30	42	10	61	..	..	42	110	8	2	22 [d]	2 [d]
1921-1927	32	41	6	66	30 [e]	42 [e]	46	107	14	4	35	9
1928-1934	28	38	4	77	42	51	52	102	28	7	44	27
1935-1939	22 [f]	59 [f]	37	88	53	98	39	65	42	20	45 [f]	51 [f]
1940-1945	..	..	8	59	92	104	77	48	56	15	..	..
1946-1950	34	16	96	62	87	58	87	61	73	28	94	68
1951	40	71	101	92	89	100	93	87	81	63	107	84
1952	58	93	94	100	93	108	98	102	82	90	108	87
1953	100	100	100	100	100	100	100	100	100	100	100	100
1954	157	94	95	101	90	88	102	104	102	72	118	92
1955	176	113	102	105	86	93	102	109	98	76	131	98
1956	180	106	96	103	92	97	106	114	104	92	146	104
1957	224	119	91	105	112	89	115	118	111	100	152	109

Sources and methods: See Appendix B.

NOTE. — Mining of crude petroleum is excluded throughout.

[a] 1900-1909. [b] 1910-1913. [c] 1911-1913. [d] 1919-1920.
[e] 1922-1927. [f] 1935-1938.

fold influence of laggard world demand, lack of interest on the part of private (mainly foreign) capital, and exhaustion of the more easily accessible sources of supply.

The Korean war gave a fresh impetus, especially to Italian sulphur, Portuguese wolfram, Turkish chromium and Greek bauxite; and despite some subsequent slackening of the pace, mining output more than doubled in Greece between pre-war and 1957, nearly tripled in Yugoslavia, and tripled in Turkey (see Tables 12 and 15). In the future, increases in domestic demand and processing for export are likely to outstrip in importance exports of the crude material, since *inter alia* export demand for the crude materials will probably be less stable and provide less employment than demand for processed products.[89] Domestic processing of copper and aluminium in Yugoslavia has already expanded significantly as a result of the steady increase in home and foreign demand for copper wire and aluminium products. The establishment or expansion of the aluminium industry is envisaged in Greece and some other southern European countries. There has likewise been a rapid increase in the output of copper in Turkey and smelter zinc in Spain, which could provide the basis for a processing industry.

Energy supplies. — Per capita consumption of energy in southern Italy, Spain and Yugoslavia is one-third to one-fourth of the level in the industrial countries of western Europe, and only one-tenth or less in Greece, Portugal and Turkey. In nearly all these countries, however, energy consumption has risen faster since 1950 than in the industrial countries of western Europe (commensurately with their higher rate of industrial growth); and there appears to have been also an increase in consumption by non-industrial users.[90]

In all these countries, Greece excepted, hydro-electricity and liquid fuels have provided an increasing proportion of total supplies. In Greece, Ireland and Portugal — three countries where domestic resources account for only a minor part of total energy supplies — the share of imports has declined moderately since 1950; but in Spain, Turkey and Yugoslavia — which import between one-third and one-fifth of their

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[89] For example, rising world demand for steel during the boom of the mid-fifties, and stockpile arrangements with the United States, provoked a sharp, but temporary, expansion of chromite ore output in Turkey. An additional important impediment to exports in some countries has been rising domestic costs and the overvaluation of the currency. In Turkey, for example, this tended to displace exports of ores to European markets to the benefit of other producers.

[90] The annual percentage increase in energy consumption between 1950 and 1958 has been as follows: Greece: 7.6, Portugal: 7.2, Spain: 7.0, Turkey: 9.7, Yugoslavia: 7.4, Ireland: 2.4. Corresponding rates (from 1950 to 1957) in industrial countries were: Belgium: 2.8, Denmark: 2.7, United Kingdom: 1.5, and western Germany: 6.3.

TABLE 16

Apparent consumption of primary energy in southern Europe and Ireland

Million tons of hard coal equivalent

Country	Solid fuels			Liquid fuels			Hydro-electricity			Total			Percentage of net imports in total apparent consumption of energy	
	1950	1955	1958	1950	1955	1958	1950	1955	1958	1950	1955	1958	1950-1951	1956-1957
Greece	0.4	0.6	0.7 [a]	1.4	1.7	2.3 [a]	—	0.1	0.2	1.8	2.5	3.2	94	82
Ireland	2.3	2.2	1.6	0.8	1.2	2.0	0.2	0.2	0.4	3.2	3.6	3.9	89	82
Portugal	1.1	0.9	1.0	0.8	1.3	1.7	0.2	0.7	1.0	2.1	2.8	3.7	68	56
Spain	12.7	14.1	16.9 [a]	1.5	3.3	6.5 [a]	2.0	3.6	4.5	16.2	21.0	27.8 [a]	24 [b]	33
Turkey	3.0	4.3	5.1	0.8	1.7	2.7	—	—	0.3	3.8	6.0	8.1	20	22
Yugoslavia	7.0	9.2	11.2	0.7	1.0	1.5	0.5	1.0	1.7	8.2	11.3	14.5	10	26

Sources and methods : See Appendix B.

NOTE. — Figures for 1958 are not strictly comparable with those for previous years, owing to slight changes in conversion factors used. Non-commercial sources of energy, such as fuelwood, peat, etc. are excluded throughout.

[a] Figures do not take into account stock changes.

[b] 1951 only.

supplies — consumption has increased faster than domestic supplies (see Table 16) and called for proportionately higher imports.

The direction of change in the industrial structure of the less industrialized countries is towards industries, such as steel and chemicals, that consume more energy per unit of output than the present average; so that any reduction of dependence on imports in coming years seems unlikely. Nevertheless, the growing tendency to refine imported crude petroleum instead of importing refined products, though scarcely affecting import dependence in terms of calories, represents a saving of foreign exchange.[91]

The degree of utilization of generating plant is tending to show some long-term improvement in nearly all countries.[91a] Yet if certain conditions were satisfied, it seems likely that further rationalization of the electricity supply could generally be attained. Fuller utilization of existing capacity — particularly in thermal-power plants — could be achieved by improving load conditions: for example, by the use of appropriate tariffs, by the further linkage of plants, and by the extension of distribution networks.

Cement, steel and chemicals. — The changing rate of output of cement, steel, and fertilizers is shown in Table 17. Greater building activity, and substitution (encouraged by high transport costs) of imports by domestic production, have led to a tripling of cement output in the last ten years in Greece and Turkey and to an almost twofold increase in the other countries. Per capita consumption of cement is now between 100 and 150 kg. in Greece, Portugal and Spain, and 60 to 85 kg. in Turkey and Yugoslavia — compared with 300-400 kg. in the industrial countries of western Europe. Imports have fallen from one-half of total supplies in Turkey in 1950-1951 to about one-tenth in 1957-1958; in Yugoslavia one-fifth of domestic output is exported, and a much smaller proportion in Greece and Portugal.[92]

Domestic demand for steel is met mainly by imports in all countries of the region except Spain and Yugoslavia (see Table 17). Although the steel industry was set up only fairly recently in the countries of the region other than Spain [93] and southern Italy, it has grown rapidly in Yugoslavia, and the first stage in steel-making has been reached in Turkey and to a lesser extent in Greece. Ireland has one plant, output of

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[91] In southern Italy two nuclear power plants are under construction and are expected eventually to reduce the reliance on imports and on supplies from the north. Furthermore, a thermo-electric plant, using local lignite resources, is to be established in Sardinia.

[91a] **Plant utilization in electricity-generation**

	KWh per year per kW of capacity	
	1938 [a]	1958 [a]
Greece	2 200 [b]	3 800 [b]
Ireland	2 300 [b c]	3 000 [b c]
Italy	3 100 [b]	3 000 [b]
Portugal	1 500	2 400 [b c]
Spain	1 400	2 700 [b c]
Turkey	1 700	2 200
Yugoslavia	2 300	4 000 [b c]
Western Germany	. .	4 200 [b c]
Belgium	2 400 [b c]	3 900 [b c]

Sources : ECE, *Annual Bulletin of Electric Energy Statistics*, 1956 and 1959; *Power Production in Turkey, 1955*, EIE, Ankara; *Estadistica das Istalaçoes Electricas em Portugal, 1957*, Lisbon 1958.

[a] 1939 for Yugoslavia and 1956 for Ireland.

[b] Data based on maximum net capacity in continuous operation.

[c] Data based on net production (i.e. excluding plants' own consumption).

[92] In 1960 Turkey will export a small quantity of cement, mainly to Kuwait and Pakistan.

[93] The output of steel in Spain in 1929 was over 1 million tons, a level which was regained only by 1954.

TABLE 17

Output, trade and consumption of steel, cement and fertilizers in southern Europe and Ireland

	Apparent consumption per capita			Production	Apparent consumption	Production	Imports	Exports	Apparent consumption	Production	Imports	Exports	Apparent consumption
	Pre-war	1950-1951	1957-1958	Pre-war		1950-1951				1957-1958			
	Kilogrammes [a]			*Thousands of tons*									
Steel [b]													
Greece	24	24	33	20	170	25	164	—	189	60 [c]	228	3	285
Ireland	35	38	44	—	102	—	114	—	114	35 [c]	93	1	127
Portugal	23	26	42	..	172	—	227	6	221	—	382	3	379
Spain	15	30	58	574	377	817	43	7	853	1 458	260	1	1 717
Turkey	10	14	11	—	164	116	176	—	292	178	108	—	286
Yugoslavia	17	33	66	230	261	431	119	—	550	1 084	266	174	1 176
Cement													
Greece	47	51	144	310	330	414	2	12	404	1 306	2	74	1 234
Ireland	108	208	200 [d]	110	316	430	187	—	617	655	5	81	579
Portugal	33	58	103	268	251	607	6	120	493	1 001	4	78	927
Spain	23	77	158	593	593	2 213	1	54	2 160	4 650	26	6	4 670
Turkey	20	27	59	290	334	396	189	—	585	1 386	160	—	1 546
Yugoslavia	34	53	86	712	516	1 189	—	322	867	1 974	—	430	1 544
Fertilizers [e]													
Greece	6	15	34	10	21	15	18	—	33	34	58	2	90
Ireland	33	63	89	23	44	36	41	—	77	29	80	—	109
Portugal	11	18	34	30	47	74	31	2	103	98	46	3	141
Spain	6	11	28	87	120	373	..	..	355	572	..	..	529
Turkey	—	—	1	1	1	4	12	—	16	11	11	—	22
Yugoslavia	1	2	36	12	5	12	..	..	15	40	..	..	145

Sources and methods : See Appendix B.

[a] For fertilizers, kilogrammes per hectare of arable land.

[b] Production refers to crude steel, and trade and apparent consumption to crude steel equivalent.

[c] 1957.

[d] 1955-1956.

[e] Figures for production, trade and apparent consumption (in terms of plant nutrients) refer to the agricultural years 1938/39, 1952/53 and 1956/57 and those for consumption per hectare to pre-war, 1950/51 and 1957/58.

which is to be increased and diversified, and the second development plan of Portugal provides for a steel plant, construction of which was begun under the first plan. A major step in the development of southern Italy has been the decision to install a plant with a million tons capacity at Taranto, to begin operations in 1963 or 1964. The per capita consumption of steel in all these countries is rather low, even in relation to present income levels, and steel consumption in the future can be expected to rise more rapidly than incomes.[94]

The growth of the chemicals industry in the region has been marked by three major developments: the rapid growth of fertilizer output (especially in Spain); the establishment of a petro-chemicals industry, particularly in southern Italy, but also in Spain, Yugoslavia and Turkey; and the generally slow expansion and diversification of production of mineral acids (nitric, hydrochloric and sulphuric) and bases (especially caustic soda).[95] Fertilizer consumption has been rising fast in all countries except Turkey, with a resulting increase in import dependence — particularly in Yugoslavia — despite the rise in domestic output (see Table 17).

Capital Goods

Apart from Spain and Yugoslavia, only a limited beginning has been made to the establishment of capital-goods industries; for with the exception of a few large, specialized enterprises (e.g. the MKEK and tractor plants in Turkey and some shipyards in Greece, southern Italy and Portugal) production is confined to small workshops engaging mainly in repair and maintenance.[96] Owing to the smallness or complete

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[94] Per capita consumption of steel ranges between 200 and 350 kg. in industrialized western European countries (see ECE, *The European Steel Market in 1958*, Geneva 1959, p. 9), against 10 kg. to 65 kg. in southern Europe and Ireland (see Table 17).

[95] Consumer products of these industries, such as detergents, plastics and pharmaceuticals, were discussed above in relation to the new consumer-goods industries.

[96] Capital goods probably account for about 20 per cent of industrial output in Spain and Yugoslavia as opposed to some 5 per cent in the other countries. For OEEC member countries combined, the share is about 30 per cent. (See E. S. Kirschen, *The Structure of the European Economy in 1953*, OEEC, Paris 1958.)

TABLE 18

Imports of machinery and transport equipment [a] as a percentage of gross investment in machinery and equipment

Based on values at current prices

Country	1952	1956
Greece	68	84
Portugal	..	70
Spain	31 [b]	31
Turkey	77	64 [c]
Yugoslavia	29	13
Western Germany	4	6
Netherlands	40	51
Sweden	52	57

Sources: OEEC *Statistical Bulletins — General Statistics* and *Foreign Trade, Series IV*, Paris; and national statistics.

NOTE. — The figures for imports of machinery and equipment are taken from foreign trade statistics and make no allowances for domestic trade margins and transport costs.

[a] SITC Section 7, *less* item 732.01 (passenger road motor vehicles).

[b] 1954.

[c] 1955.

absence of many capital-goods industries, dependence on imports of machinery and equipment is considerable (see Table 18); it amounts to two-thirds or more of total supplies for investment in most countries, though only about 13 per cent in Yugoslavia (but nearly 60 per cent in the earlier post-war years) and 30 per cent in Spain.[97]

The capital-goods industry in Spain was started before the civil war. An important impetus to development was the creation in 1942 of the Instituto Nacional de Industria (INI), following which Spain began to produce various machine-tools, tractors and lorries. Output of electric equipment, especially generators and transformers, and of benzine and diesel engines expanded very rapidly (see Appendix Table XXII); and vehicle assembly plants were set up and shipyards enlarged. Yugoslav output of capital goods is now over seven times larger than pre-war and was given priority in the immediate post-war years in order to assure supplies of equipment and machinery for rapid industrialization and to give support to the very heavy defence programme. By 1958 a wide variety of equipment was being produced (see Appendix Table No. XX),[98] and the export of capital goods has been actively promoted, usually on a bilateral basis and often combined with the grant of credit to primary-producing countries.[99] Such exports absorb almost one-third of the industry's output and account for about 10 per cent of total exports. The Yugoslav authorities expect that, with present credit arrangements, exports of capital goods may double over the next few years. Similarly, the development of a number of large shipyards has permitted a rapid rise in shipbuilding both for domestic customers and for export.

(b) Industrial investment, employment and productivity

As is shown in Table 19, the share of industry in total gross fixed capital formation has varied in recent years from one-fifth in Greece, southern Italy and Turkey, to one-fourth in Ireland, one-third in Portugal and Yugoslavia, and nearly one-half in Spain. In relation to national product the greatest investment effort has been in Yugoslavia, where in the early fifties as much as 18 per cent of the national product was devoted to industrial investment — a proportion which gradually fell as resources were released for other sectors such as transport, agriculture and housing, which had hitherto been comparatively neglected.

The distribution of investment within industry has varied more than in agriculture, and the rise in output has tended to be more closely correlated with the growth of investment. For instance, probably two-thirds of industrial investment (excluding public utilities and mining) in Turkey between 1950 and 1957 was devoted to the major consumer-goods industries (food, drink and tobacco and textiles and clothing), and in Greece the corresponding proportion was about one-half (see Table 19). Metal-making and metal-using industries obtained less than 20 per cent of the total in Turkey. In line with its existing importance in total industrial output, the chemicals industry in southern Italy took one-third of state-aided investment, and miscellaneous industries (including textiles) received another third. The pattern of investment in Yugoslavia, and probably in Spain, was very different. As stated above, preference was given to the establishment of new metal-making and metal-using industries in the former country, which — together with chemicals — absorbed over two-thirds of total industrial investment during the period of maximum concentration on heavy industry.[100]

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[97] A high degree of dependence on imports is also to be found in the smaller countries of western Europe (see Table 18), but these countries are also major exporters of certain kinds of machinery and industrial equipment. (The percentage of exports to production of machinery and equipment is about 40 in the Netherlands and Belgium and 70 in Sweden). In other words, in these countries the capital-goods industries are based very largely on the advantages of specialization arising from international trade. In the southern European countries (Yugoslavia a partial exception) and Ireland, on the other hand, the commodity flow is one-way only.

[98] Prominent items are electric machinery (generators and turbines), heavy machinery, machine-tools, farm implements, engines and transport equipment (locomotives, railway wagons, passenger cars, lorries and motor-cycles).

[99] Credits granted for purchases of Yugoslav equipment (to Ceylon, Egypt, Ethiopia, India, Indonesia and Sudan) total $100 million.

[100] Precise data on the distribution of industrial investment in Spain are not available; but what evidence there is suggests that the share of investment in electric power has been higher than in most other countries.

TABLE 19

Distribution of gross fixed investment in industry in southern Europe and Ireland

	Greece		Ireland		Southern Italy		Portugal		Spain		Turkey		Yugoslavia	
	1950-1951	1956-1957	1953-1954	1957-1958	1950-1951	1956-1957	1952-1953	1956-1957	1950-1951	1957-1958	1948-1949	1954-1955	1952-1953	1957-1958
Gross fixed investment in industry as percentage of:														
Total gross fixed investment	25	21	28	28	26	20	34	33	37	45	17	21	64	36
Gross national product at market prices	3.8	3.3	4.5	3.8	4.9	5.3	4.8	5.0	—5.5 [a]—		1.6	3.0	18.3	9.3
Gross domestic product of industry as percentage of total gross domestic product	26	25	28	29	..	38	38	38	—32 [a]—		15	21	52	47
	1952-1956				1950-1958						1950-1951	1956-1957	1948-1949	1957-1958
	Percentages of total gross fixed investment in manufacturing [b]													
Food, beverages and tobacco	29		..	..	17		..	..	..	..	20	32	6	16
Textiles and clothing	19		..	..	.. [c]		..	..	..	..	45	29	4	9
Metal-making	11		..	..	4		..	..	..	..	9	8	21	17
Metal-using	9		..	..	10		..	..	..	..	7	7	32	18
Chemicals	8		..	..	36		..	..	..	..	5	4	13	12
Other	24		..	..	33		..	..	..	..	14	20	24	28

Sources and methods : See Appendix B.

[a] 1954-1957.

[b] Southern Italy: only investment financed wholly or partly by the Cassa per il Mezzogiorno; Turkey: only enterprises using engines of more than 10 h.p. capacity or employing 10 or more workers; Yugoslavia: "enterprises" and state co-operatives only.

[c] Included in "other".

The data on the industrial labour force shown in Table 20 have serious deficiencies in coverage. None the less they suggest that in Spain and Yugoslavia industry absorbed two-thirds and three-fifths respectively of the increase in the labour force between the early fifties and 1957 or 1958, and that numbers in agriculture declined; whereas the proportion absorbed by industry in Greece and Portugal was only about one-third.[101]

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[101] Changes in the recorded industrial labour force may somewhat understate changes in industrial employment because of the absorption into employment of unemployed, and of reductions in under-employment.

TABLE 20

Industrial output, labour force, and productivity; and gross fixed investment per additional worker in southern Europe and Ireland

	Numbers in 1957 [a] (Thousands)		Increase 1950 to 1957 [b] (Thousands)		Increase 1950 to 1957 [b] (Percentage)			Gross fixed investment per additional worker, 1950-1957 [c]	
	Total active population	Industrial labour force	Total active population	Industrial labour force	Industrial labour force	Industrial output	Output per person employed	Thousands of national currency units	Dollars [d]
Greece	3 070	700	230	85	14	85	63	175	5 900
Ireland	1 206	316	—66	6	2	12	10	23	6 350
Portugal	3 500	890	212	66	8	45 [e]	35	230	8 000
Spain	11 700	3 336	907	582	21	72	42	156	5 130
Turkey	11 893	1 130	1 168	240	27	61	27	9	3 210
Yugoslavia	8 984	..	593	362*	30	89	45*	4 460	9 500

Sources and methods : See Appendix B.

[a] 1958 for Greece and 1955 for Turkey.

[b] 1951 to 1958 for Greece, 1951 to 1957 for Ireland, and 1950 to 1955 for Turkey.

[c] Total gross fixed investment during the period 1950 to 1957 divided by the increase in the industrial labour force between 1950 and 1957.

[d] Converted on the basis of official rates, except for Spain (principal export rate: 30.42 pesetas equals one dollar) and Yugoslavia (466 dinars equals one dollar — an average of the official and the settlement rate).

[e] Increase in gross domestic product of industry at constant prices.

TABLE 21

Selected data on industrial output, gross fixed capital formation, employment and productivity in Yugoslavia by major sectors, 1952 to 1958

	Increase in output between 1952 and 1958	Cumulated gross fixed capital formation 1952-1957	Marginal capital-output ratio [a]	Employment *(thousands)* 1958	Employment *(thousands)* Increase 1952 to 1958	Increase in output per person employed	Gross fixed investment per additional person employed [b]	
	Billion dinars at 1956 prices					*Percentage*	*Million dinars*	*Thousand dollars* [c]
Total manufacturing	359	808	2.2	870	348	31	2.3	5.0
of which:								
Food, beverages and tobacco .	58	61	1.1	98	54	−7	1.3	2.4
Textiles and clothing	60	46	0.8	167	75	—	0.7	1.3
Metal-making	48	251	5.2	88	27	41	9.2	19.7
Metal-using	126	151	1.2	222	108	38	1.4	3.0
Chemicals	35	119	3.4	32	16	53	7.4	15.8

Sources and methods: See Appendix B.

[a] Ratio of gross fixed capital formation during the period 1952 to 1957 to increase in output between 1952 and 1958.

[b] Total gross fixed investment during the period 1952 to 1957 divided by the increase in employment between 1952 and 1958.

[c] Converted into dollars as for Table 20.

The change in the industrial labour force and productivity in Greece and Portugal is in distinct contrast with that in Spain, Turkey and Yugoslavia. In both of the former industrial productivity rose four times as much as the labour force between 1950 and 1957, whereas in Spain it rose only twice as fast and in Turkey and Yugoslavia increased at approximately the same rate. These differences were not closely related to investment per additional worker (which, except in Turkey, ranged between $5,000 and $9,500). This suggests that industrial investments in Greece and Portugal mainly led to a deepening of the capital stock, whereas in the other three countries they resulted more in its widening.[102] Yet this conclusion is at first sight inconsistent with the marginal capital/output ratios revealed by the statistics of investment and output. Low capital/output ratios (Greece and Portugal) are associated with an upsurge in industrial productivity and a deepening of the capital stock: high ratios (Turkey and Yugoslavia) with a smaller rise in productivity and a widening of the capital stock.

Marginal capital/output ratios in mining, manufacturing and construction

Country	*Period*	*Ratio*
Greece	1948-1957	1.3
Portugal . . .	1950-1958	1.7
Turkey . . .	1948-1955	3.0
Yugoslavia .	1948-1958	2.6

Sources: see Appendix B.

The explanation of this relationship consists in large measure in divergent patterns of industrial growth. In Greece and Portugal most of the industrial expansion seems to have come from existing plants which were capable of producing much more with relatively minor investment in machinery and equipment and little or no change in the labour force.[103] In Spain, Turkey, Yugoslavia and southern Italy capital widening reflects the broadening of the industrial base and the setting up of new factories (with stress on consumer goods and intermediate goods in Turkey, mainly intermediate goods in southern Italy, and intermediate and capital goods in Spain and Yugoslavia). The new factories have had both a high labour content per unit of investment and a higher capital content per unit of output than have existing enterprises. As more efficient management and factory organization are achieved, and better training and skills provided for the labour force in these latter countries, the likelihood is that labour productivity will increase *pari passu* with the more efficient use of existing equipment and labour, with a consequent decline in the marginal capital/output ratio. This tendency is already discernible in Yugoslavia, where industrial output has continued to expand rapidly since 1952 despite a slower rise in industrial investment,[104] and where the distribution of investment has been changing in favour of consumer-goods industries with a lower capital intensity (see Table 21). In Turkey, however, the reduction of the ratio in the newer industries as a result of greater efficiency may be offset by the need for investment in the more capital-intensive basic industries in the future.

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[102] There is, of course, no direct relationship between investment and an increase in employment, since all depends on how much of the investment is in the rationalization and modernization of existing equipment. It is estimated that in southern Italy the investments required for employing a new worker in new establishments are roughly $7,500. This average includes the chemicals industry, which accounts for about one-third of all state-aided industrial investment and where the investment required is about $18,000 per additional worker.

[103] Thus, the employment of wage and salary earners in the Athens-Piraeus area increased by barely 2 per cent from 1952 to 1958, which is less than the increase in the total labour force. In Turkey, on the other hand, employment in medium and large enterprises increased by 43 per cent between 1950 and 1955 while the total industrial labour force rose 27 per cent. In southern Italy, where industrial growth has been brought about essentially through the establishment of new factories, employment in what can be considered modern manufacturing industry, as recorded by the Ministry of Labour, increased by 35 per cent from 1951 to 1958, as against 5 per cent in northern Italy, where investment was more in the re-equipment and expansion of existing factories.

[104] The marginal capital/output ratio for 1952-1958 was 2.2 and this relationship seems to have continued since.

In Greece and Portugal, as also in Ireland, further expansion of industrial output would seem to depend more on setting up new plant (though there is, of course, much room for reorganizing existing capacity and improving efficiency) and this would tend towards higher marginal capital/output ratios than in the past. At the same time it would lead to a proportionately greater expansion of industrial employment and to a somewhat slower rise in labour productivity than heretofore.

The relevance of marginal capital/output ratios in particular industries for planning investments in accordance with desired production targets is plain; but such data are available only for Yugoslavia, and the period covered (1952 to 1958) is not long enough for firm conclusions to be drawn. Yet it is clear from Table 21 that investments in the food, beverages and tobacco industries, in textiles, and in the large and important metal-using group, were not much higher than the annual additions to output. These three sectors account for no less than two-thirds of the increase in total manufacturing output and employment in Yugoslavia since 1952. Nor was the investment per additional worker ($1,300 to $3,000) very high. But in the remaining industrial sectors (metal-making, chemicals, paper, building materials, electricity, etc.) the increment in output per unit of investment or additional employment was distinctly lower.

In southern Italy investment per worker has been high in new establishments, though in the food and metal-using industries it has amounted to only $4,700 and $6,600 respectively as opposed to $8,000 in metal-making and $53,000 in electricity. Investment per additional worker in the expansion of existing plants has been only about one-half that required for new establishments.

Data published by the Industrial Development Bank of Turkey indicate that the marginal (net) capital/output ratio for 21 representative projects financed by this institution in 1958 was expected to range between 0.9 for a beverage factory to 2.5 for two factories producing earthenware, glass and ceramics. Average gross investment per worker was put at almost $10,000 (at the present exchange rate).[105] These figures are broadly similar to those obtained in Yugoslavia and southern Italy and point to the same conclusions: capital intensity is much higher for new than for already established lines of production.

(c) Policies for future expansion

In contrast to the position in agriculture, industrial output per head in southern Europe and Ireland is only one-fourth that in industrial western Europe. There is a wide disparity of levels of output around this regional average: Ireland, Spain and Yugoslavia have reached between 30 and 40 per cent, and Greece and Turkey only 10 to 15 per cent of the level of the industrial countries (see Table 22) — with particularly marked differences in the metal-making, metal-using and chemicals industries. While the path of the development desirable for any one country manifestly depends in large part on its natural endowments and comparative advantages, it is no less clear that expansion is most needed in those sectors where the leeway between these countries and the industrially developed countries is greatest.

With an annual rate of industrial expansion of 7 per cent, the less-industrialized countries of western Europe could reach within two decades the present per capita level of industrial output of the economically advanced countries. This rate is indeed slightly lower than that maintained during the last decade in all countries of the group except Ireland and Portugal.[106] It has also been seen that similar rates of industrial expansion have been sustained over periods of twenty years in other industrializing countries. Hence the major concern of most of the countries under review must be at least to maintain the recent rate of growth. Since in some countries there are indications of a slackening of industrial growth (particularly in Spain, and to a lesser extent in Turkey and Greece); and since in others, such as Ireland and Portugal, industry has expanded at a rate well below the average (and in southern Italy not significantly faster than in the north) an examination of present policies of industrial development and of the possible need to adapt them to changing conditions is appropriate, and is attempted in this section.[107]

Broadly speaking, measures affecting industry can be grouped under four major heads: fiscal and credit policies; commercial policy regarding tariffs or quantitative restrictions; location policies, and questions of direct state participation in industrial activity.

Fiscal and Credit Policy and Private Foreign Capital

Scarcity of viable projects and of entrepreneurial initiative has been in several countries — especially

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[105] See Türkiye Sinai Kalkinna Bankasi A.S., *Annual Statement*, Istanbul 1959.

[106] On the other hand, Irish industrial output per head is closer to that of the industrial countries.

[107] The most important policy measures adopted by several countries after the war were reviewed in the SURVEY for 1953, p. 177 *et seq.*, and only the major changes which have occurred in more recent years are briefly recalled here. More general considerations of internal and external balance of the economy also affect, of course, the progress of industrial development, and these are discussed in Chapter VIII.

TABLE 22

Per capita industrial output in southern Europe and Ireland and in industrial western European countries in 1953

Index numbers: per capita output in industrial western European countries = 100

	Southern Europe and Ireland	Greece	Ireland	Portugal	Spain	Turkey	Yugoslavia
Mining and manufacturing	*25*	*15*	*40*	*20*	*30*	*10*	*35*
Mining	25	15	20	5	30	15	55
of which:							
Coal	15	5	—	5	20	10	35
Metal	115	80	—	35	140	60	215
Petroleum	30	—	—	—	5	—	135
Other	35	20	170	10	25	20	55
Manufacturing	25	15	40	25	30	10	35
of which:							
Food, drink, and tobacco	35	25	125	25	40	25	40
Textiles	50	55	45	45	65	30	65
Clothing	25	—	65	85	40	10	10
Wood products	50	20	45	50	70	5	80
Paper and paper products	15	15	35	10	20	5	30
Printing	20	25	70	15	25	5	10
Leather	65	50	85	50	70	25	110
Rubber products	30	20	—	35	50	15	30
Chemicals	25	20	20	25	40	10	35
Non-metallic mineral products	35	35	30	35	50	10	50
Basic metals	25	5	—	20	30	5	50
Metal products	10	5	20	10	15	5	25
Other industries	10	10	35	10	15	5	10

Source: UN, *Monthly Bulletin of Statistics*, January 1958.

NOTE. — Figures are rounded to the nearest 5 or 10. Southern Italy is excluded from southern Europe and neither southern nor northern Italy is included in the industrial western European countries.

Greece, Ireland and Portugal — a more important handicap than shortage of finance. The banking system is not yet geared to the vigorous pursuit of industrial development, since in most countries of southern Europe it tends to favour short-term credit for imports and commerce, and long-term credit for real-estate transactions.[108] Two different approaches have been adopted in these countries in recent years to overcome such institutional impediments.

First, measures were taken — within the existing framework — to harness more savings and to channel them to productive uses. For example, under a statutory decision of the Greek Currency Committee in June 1957, banks and savings institutions were instructed to earmark 30 per cent of their increase in deposits, up to a maximum of 10 per cent of total deposits, for the granting of five- to eight-year loans for productive purposes.[109]

Second, the credit system was enlarged by the establishment of new institutions specializing in medium- or long-term industrial credit. In Greece, the institution established in 1954 to handle counterpart and other foreign aid funds — the Economic Development Financing Organization (EDFO) — was given extended powers in 1957, enabling it to guarantee credits and float public loans. A further step was taken in September 1959 with the establishment of an Industrial Development Organization, 40 per cent of the capital of which is contributed by the state, and the remainder by the EDFO and the commercial banks; it is charged with the financing — through straight loans or equity assistance — of new public or mixed industrial enterprises that are expected eventually to be transferred to private ownership. In other countries special institutions were created for extending working capital and long-term loans. Examples of these are the Industrial Development Bank in Turkey (set up in 1950), the National Development Bank in Portugal (set up in 1959 to replace the National Development Fund of 1949), the Industrial Credit Company in Ireland (established in 1933 and given new powers and fresh resources in 1958) and the three specialized credit institutions (the Isveimer, Irfis and the Credito Industriale Sardo) which were set up in southern Italy in 1953 to finance long-term loans out of resources obtained from the market, foreign loans, or the Cassa per il Mezzogiorno.

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[108] In addition to institutional banking factors, the high rate of interest on bank loans in Greece may have acted as a disincentive to private investment in industry.

[109] A decree in 1957 also provided for various advantages (tax exemptions, index ties, etc.) to subscribers of long-term equipment loans, such as the Dr. 300 million loan floated in 1958 by the Public Power Corporation.

Nearly all countries have sought, through special provisions, to attract private foreign capital.[110] Preferential treatment is often granted to foreign enterprises and guarantees provided for both the transfer of at least part of current earnings and the repatriation of capital; often, tax privileges are also granted (e.g. guarantees under the Greek law of 1953 against future increases in rates). Special laws to attract foreign investment have been passed in Greece (1953), Turkey (1954),[111] Italy (1956) and more recently in Spain and Ireland.[112] The contribution of direct private foreign investment, however, has been and is likely to remain marginal. Experience in Greece, and more recently in Ireland, suggests that, in addition to blanket conditions covering the investment of foreign capital, well-devised schemes — worked out jointly with prospective investors, and making provision for technical know-how — are necessary. Thus, for example, of the total inflow of private foreign capital into Greece in the last five years (averaging about 35 million dollars annually) only one-fourth has entered under the provisions of the 1953 law, and of this only a very small part was for directly productive investment.[113] Most of the capital imported has been used to meet the requirements for working capital of foreign concerns, and for housing construction, though lately it has also included the repatriation of capital by Greek ship-owners. Only since the agreement with the government and private credit institutions in western Germany has the prospect been opened up of a greater flow of capital linked with specific investment projects that are the object of joint study.[114]

Commercial Policies

Fiscal incentives for industrial development (remittance of taxes on profits, extended facilities for depreciation allowances, and capital grants), as well as policies designed to facilitate credit for industry have in general been non-discriminatory.[115] However, tariff protection and quotas have discriminated among industries — and not always according to any logical principle. The infant industries' argument for tariff protection has long been conceded, and is internationally endorsed by Article XVIII of the General Agreement on Tariffs and Trade.[116] Most of the now industrialized countries developed new industries behind a tariff barrier (which at times prevents rather than induces change); and the less industrialized countries of western Europe have also used tariff protection to establish a nucleus of either basic industry, such as steel, or consumer-goods industries, such as textiles. In particular the drive to industrialization in Turkey and Spain long before the second world war, and the establishment of an industrial base in Ireland after the separation from Britain in 1923, were accompanied by strong tariff protection. So far, protection has been accorded mainly to consumer-goods and some basic intermediate industries, whereas imports of equipment and machinery have been admitted virtually duty-free in most countries, Spain and Yugoslavia being the most important exceptions.[117] This has encouraged investment and lowered its costs, but may have been an impediment to the growth of a domestic capital-goods industry.

Domestic capital-goods industries have already been established in Yugoslavia and Spain, aided by a protective tariff; now the major problem in these countries is to reduce costs and attain a greater degree of specialization and skill. In the other countries, the establishment of such industries is under way or foreseen, and it may be expected that for balance-of-payments reasons, and also in order to widen the industrial base, their importance in the economy will increase. A case may well therefore exist for a revision of the tariff structure in these countries, such as would shift the emphasis from the (often no longer justifiable) protection of established consumer-goods industries to new investment-goods industries. Since a general tariff on imported machinery and equipment would raise the cost of domestic investment and by the same token the cost of potential export commodities, to grant a direct subsidy for a number of years might be a better solution; if this should still not be a sufficient inducement to private enterprises, the state could in the first place promote these industries either in co-operation with private firms or, if necessary, on its own initiative. Of course, the grant of subsidies would have to be tailored to suit the needs of long-term planning and of productivity and made to match the requirements of internal balance of the economy. Otherwise the risk would be run of fostering unsound and inefficient enterprises and promoting the emergence of serious inflationary deficits, such as have occurred in Spain and Turkey.[118]

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[110] In Spain and Ireland legislation aimed at keeping industry in national ownership has been amended in the last two years in order to attract foreign capital for direct investment in industry. Portuguese legislation treats foreign capital on a par with domestic, once it has been admitted; one-fourth of the second six-year plan is to be financed from abroad, but mainly, it is hoped, by international institutions.

[111] From 1951 to 1958 inclusive, 255 foreign corporations were established in Turkey, with a total investment in foreign exchange of $73 million. Turkish investors contributed to the financing of these projects to the extent of an additional £T200 million ($72 million). (*News from Turkey*, New York, 19 August 1959.)

[112] Furthermore, Yugoslavia has made extensive use of foreign patents, especially for capital goods (e.g. tractors, maritime engines), and for consumers' durable goods (e.g. cars, household appliances). In most cases, technical assistance from foreign firms has been arranged simultaneously.

[113] *To Vima*, 20 December 1959.

[114] However, it was announced in December 1959 that the second sugar refinery to be set up in Greece will be constructed by a Polish firm, with payment to be made partly in exports of tobacco and other agricultural products.

[115] Noteworthy exceptions are: the preferential tax treatment granted in Portugal to the textile industry under the Finance Law of 1956; mining and shipping in Ireland since 1956 (and more generally the preferential fiscal treatment accorded enterprises producing mainly for export); and shipping in Greece (where proposals for further tax relief are at present before Parliament).

[116] The less industrialized countries which are full members of GATT (Greece and Turkey in western Europe) have a considerable degree of flexibility in changing the rates of tariff in order to protect developing industries. Even with regard to items for which a country has undertaken voluntarily and expressly not to raise tariffs (" bound " items) there is a provision for renegotiation every three years, and in special circumstances at any time if authorized by the contracting parties. Moreover, under Section A of Article XVIII a less-industrialized country, in order to promote the establishment of a particular industry with a view to raising the general standard of living of its people, may withdraw or modify a tariff concession at any time, under rules and procedures which are simpler than those for the renegotiation of bound items.

[117] In Portugal, for example, where specific duties are applied, the customs duty on cotton fabrics ranges from 80 to 200 escudos per 100 kg and that for handbags and a number of articles made from leather is set at 800 escudos per 100 kg. On the other hand, custom duties for certain simple kinds of agricultural machinery range from 2 to 14 escudos per 100 kg. In Turkey, where an *ad valorem* customs tariff is in force, the duties on cotton fabrics amount to 70 per cent and those on footwear to 100 per cent, whereas on most types of machinery (textile machinery, sewing machines, machine tools, etc.) they are only nominal (5 per cent).

Quotas and other administrative restrictions on imports have also been applied — usually for balance-of-payments purposes, but sometimes, if not always avowedly, in order to afford domestic industries protection from imports.[119] Or a system of multiple exchange rates has been used, as in Spain and Turkey, with a discriminatory effect similar to that of a tariff.[120] As a result, many industries thus sheltered from foreign competition have been uncompetitive in world markets and their costs have been higher in money terms than those of equivalent imports; but on the other side of the balance, a measure of industrialization and of diversification of output has been attained that would scarcely otherwise have been possible. Yet as the experience of industrial countries shows, once protection is given, it is not readily withdrawn; and its continuation when no longer justified leads to a misallocation of domestic resources and a limitation of the gains from international specialization. This is one reason underlying Yugoslavia's recent adhesion to GATT as an associate member and the stabilization programmes recently adopted in Turkey and Spain. These measures, and the changed attitude to protection in Ireland, suggest that greater weight is now attached in national programmes to the closer alignment of the structure of domestic costs with that prevailing abroad, and that protective tariffs—often determined more in accordance with the relative strengths of vested interests than by broader economic considerations — are to be examined more critically with reference to an industry's ultimate viability or importance for economic development. Greece, on the other hand, has so far followed a rather liberal import policy and is now re-examining its present tariff structure with a view both to entering the Common Market and to safeguarding the success of its five-year development programme. Portugal raised certain tariffs at the beginning of 1960 and has been granted special concessions concerning the speed and extent of tariff reductions in the European Free Trade Association.[121]

Whereas Portugal has completed negotiations with, and received special treatment from, its partners in the EFTA, both Greece and Turkey are engaged in negotiating a suitable form of membership of the Common Market of the EEC, while Spain and Ireland have not as yet approached either trading group.[122]

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[118] Subsidies in the form of fiscal allowances designed to encourage private investment are in fact applied from time to time in the industrial countries of western Europe also. They have been in force in southern Italy since 1953 and were introduced in Greece in 1959. Higher rates of depreciation allowances for plant and machinery were introduced in Ireland in 1958, supplementing other allowances (including tax relief on new industrial buildings) in operation since 1956.

[119] Virtually all imports covered by the OEEC liberalization code have been liberalized in Greece and are therefore free of quota restrictions. As of December 1958, the liberalization percentage for intra-OEEC trade was 94 for Portugal and 90 for Ireland, but for dollar imports 53 and 15 respectively. At the other extreme, Turkey and Spain have maintained complete quantitative control over imports, but are committed to a partial and gradual liberalization as an integral part of the stabilization programmes adopted respectively in 1958 and 1959. As from 11 January 1960, Portugal has brought its dollar liberalization up to the same rate as for intra-OEEC trade.

[120] Before August 1959 the exchange rate in Spain varied from a basic rate of 42 pesetas per dollar for petroleum and food products (accounting for nearly half of total imports), to 59 pesetas for lorries and 126 pesetas for motor-cars (accounting for about 2 per cent of total imports). A single rate of 60 pesetas per dollar now applies, but protective duties have been increased in some cases. Yugoslav imports are subject to global allocations of foreign currency by industrial sectors and for some items to special rates of exchange or compensatory taxes, so that the effective exchange rate is much lower for raw materials and fuel than for machinery and durable goods. (For further details see " Economic Planning and Management in Yugoslavia ", *Economic Bulletin for Europe*, Vol. 10, No. 3.)

[121] Cf. *European Free Trade Association. Text of Convention and other Documents Approved at Stockholm on 20th November, 1959* (Cmnd. 906, Annex G), HMSO, London, November 1959. In Ireland new or higher tariffs have replaced certain of the temporary import levies imposed for balance-of-payments reasons in 1956, but have not significantly changed the degree of protection accorded to Irish industry.

[122] Spain intends to consider the question more actively when, as it is hoped, the stabilization programme has brought Spanish internal conditions and external trading relationships more into line with those of other OEEC countries. Ireland, which, like Greece and Turkey, pins much hope on an expansion of exports of agricultural as well as of industrial products, and wishes to expose domestic industry to greater import competition as a spur to efficiency, has its present trading ties, particularly for agricultural products, above all with the United Kingdom. For a future expansion of industrial exports, however, Ireland may consider that it can gain more from association with the Common Market countries. Yet for Ireland to join the Common Market while the United Kingdom is a member of the EFTA would present a number of problems. Thus an enforced choice between two trading blocs, even on purely economic grounds, would be particularly embarrassing, and much may depend on the outcome of present discussions with the United Kingdom concerning a greater degree of integration of the two economies.

The Common Market was set up as an association of industrially developed countries, though the Treaty of Rome provides for special arrangements with the less industrialized dependent or associated territories of member countries. The possible entry of Greece and Turkey, or of any other country in the course of industrialization, thus raises problems of co-ordinating trade, investment, employment, and other economic policies which are quite different from those applicable to countries at a roughly similar stage of development, where the theory of comparative costs has greater relevance.[123] The exports of Greece and Turkey consist predominantly of agricultural products, and their expansion depends to a considerable extent on a reconsideration of the support given to the domestic agricultural sector of the EEC countries — which is scarcely likely to be significantly diminished in the near future, whatever the final rules applying to agricultural products — and on their possibility of competing on equal terms in the Common Market with Italy and with the overseas territories of the member countries.[123a] On the other hand, the less industrialized countries can only gradually open up their markets to the exports of their industrial partners without grave prejudice to their own programmes of industrial development.[124]

The Location of Industry

Concentration of industry in and around large urban centres, which (with the exception of Madrid) are conveniently near ports or have similar advantages for transport and communications, has led to a widening of regional disparities in income, arising from divergent rates of industrial growth and the failure to bring industry to smaller urban units in rural areas.[125] In recent years, such new industries and enterprises as have been established have largely been attracted to existing industrial concentrations, such as the neighbourhood of Naples in southern Italy, Athens-Piraeus in Greece, Madrid and the northern and north-eastern regions of Spain, Istanbul in Turkey, and Dublin and Cork in Ireland.

Although statistics are lacking, the efforts to decentralize industry do not seem to have succeeded in narrowing regional disparities in incomes, nor have the advantages of smaller centres — lower wages, an easier labour supply, and tax or other benefits — often been sufficient to outweigh the external economies of a large market — easy transport and communications, more highly skilled labour, and the proximity of government departments. Governments have attempted to diversify the geographical location of industry by two different means. Where public or public-sponsored investment is involved, preference has often been given to the siting of new projects in the less-developed regions, such as Macedonia, Montenegro, Bosnia-Herzegovina and Kosovo-Metohija in Yugoslavia,[126] or the location of several of the proposed plants in the Greek five-year programme. In Turkey, the location of cement and sugar factories has often been governed by regional considerations.

Where decisions on location have been taken by private enterprises, the state has sought to offer incentives — either by providing amenities (for example, by extending the road network in Turkey or the electric power network in Greece) [127] or, as in Greece, southern Italy and Ireland, by applying differential fiscal and credit measures, including capital grants. Nevertheless, the problem of discouraging the further growth of the Athens-Piraeus conurbation, and thereby avoiding also the necessity of further investment in infrastructure, continues to preoccupy the Greek authorities. New measures were announced in October 1959 to encourage the dispersal of industry; these included the extension for another five years of the preferential treatment accorded to provincial industry and the application of more favourable tax allowances to these regions in respect of the new provisions concerning productive investment.[128] Special measures are being taken, in co-operation with the OEEC, for an integrated development of industry and agriculture in

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[123] For an exposition and for papers presented at earlier discussions on this subject see: *Greece, The European Economic Community and a European Free Trade Area*, Ministries of Co-ordination and Foreign Affairs, Athens 1959.

[123a] Membership of the EEC could also bestow an advantage on Greece and Turkey for key exports that compete with major overseas countries (e.g. tobacco, cotton and dried fruit).

[124] In connexion with the agreement giving Portugal certain concessions regarding the speed and degree of tariff reductions, it is important to remember that the EFTA involves only the international flow of commodities, whereas the EEC provides also for greater, and eventually complete, freedom of movement of factors of production (labour and capital). While this further complicates the harmonization of policies in countries at different stages of development, membership of the EEC holds out for Turkey and Greece (as also southern Italy) the prospect of access to institutions, such as the European Investment Bank, peculiar to the EEC but not, by reason of its different objectives, a part of the EFTA.

[125] For a general review of this subject in the context of regional development, see *Economic Survey of Europe in 1954*, Chapter 6, " Problems of Regional Development and Industrial Location in Europe ".

[126] A further important instrument of industrial dispersal in Yugoslavia has been grants from the Federal Budget to the budgets of less-developed republics and autonomous regions.

[127] Whereas the Athens-Piraeus area accounted for about 75 per cent of electricity consumed in pre-war years, its share fell to about 50 per cent in 1958 as the electricity supply was extended to other regions. The cost of electric power was formerly higher in the provinces than in Athens, reaching as much as 7 drachmas per kWh. In the interest of promoting industry in the less developed regions, a uniform basic rate of 1.90 drachmas for the whole country was introduced in August 1956.

[128] Provincial industries are also granted tax exemption on earnings reinvested in the area, and the Bank of Greece and the commercial banks may charge a special rate for loans destined for firms outside the metropolis, subject to approval by the Currency Committee.

Epirus and the similar development of other zones is being studied.

In southern Italy it is proposed to concentrate future industrial development in a relatively small number of selected areas — the main purpose being to realize external economies. Public grants of up to 50 per cent of the total cost of developing the area may be made; and special grants of up to 20 per cent of total investment expenditure may be given to small and medium-sized firms set up (within or outside the chosen industrial zones) in towns with a population not exceeding 200,000 inhabitants. Similar inducements have been extended in Ireland to firms willing to set up in the undeveloped areas; but since 1957 legislation has been modified so that grants can also be made to enterprises outside these areas if there are " sound reasons why an industry cannot be established or developed in the undeveloped ones and the undertaking is of exceptional national importance having regard to its size, character, or probable extent to which its products are likely to be exported ".[129] Thus Ireland has found it more necessary than other countries to compromise in the conflict between social objectives of, on the one hand, raising incomes in the poorer regions and, on the other, lifting the national average income by means of stimulating productive investment, lower costs and export viability.[130]

Notwithstanding the magnetism for industry of the main urban areas, in almost all countries secondary industrial centres — small but growing — have emerged where previously there were no more than large rural communities.[131] This indicates at least the beginning of a process of dispersal of industry. In contrast to market-oriented and foot-loose industries, which tend to be sited close to the large cities, the supply-oriented industries — such as ore processing and cement — and generally those with high transport costs or directly set up by governments, are either widely dispersed throughout the country or have been set up in the expanding new industrial centres.

The Role of the State

The entrepreneurial role of the state in industry has been markedly different in the three larger countries of the group — Spain, Turkey and Yugoslavia — from its role in the three smaller ones — Greece, Ireland and Portugal. In the former, the state has actively engaged in industrial production, particularly in branches where private enterprise has been reluctant to venture — though in Turkey and Spain it has quite frequently been in competition with private firms. Such state participation has partly arisen from attempts to diversify the industrial structure by the establishment of new industries, even though the strict evaluation of comparative costs would often have suggested imports as a more economical means of supply. In the latter countries the initiative has been left to private enterprise; the state has endeavoured to promote industrialization by devising incentives through fiscal, credit and — to some extent — tariff policies.[132] In these countries, foreign trade policies have been relatively more liberal, and there has been a tendency (except in southern Italy) to concentrate more on the expansion of established industries than on the introduction of new ones, often against the background of a set of general objectives or a more elaborate " plan ".[133]

These differences in industrial policy have been reflected in the importance of the public sector in total industrial investment and, in particular, in investment in new industries. In accordance with the socialist nature of the Yugoslav economy, a very large part of investment in industry is directly or indirectly financed and determined by the public authorities, though with an increasing tendency towards the decentralization of decision-taking.[134] Since the thirties in Turkey and the forties in Spain, industrial investment undertaken by the public sector has constituted about two-fifths of total gross fixed capital formation. Moreover, it is estimated that about two-thirds of all industrial investments in Turkey were made by state enterprises in the period 1950-1957, with a higher proportion in mining and a lower proportion in manufacturing. The public sector in Turkey has not only encompassed mining, electricity generation and steel production, but has also participated in the expansion of consumer-goods industries such as textiles, leather and sugar. Recently plans have been drawn up for further industrial diversification through the extension of state enterprises already operating in intermediate-goods industries (e.g. fertilizers and cement),[135] whereas domestic private capital and foreign capital is expected to concentrate on ore-mining and processing, crude oil production, the chemicals and allied industries and on consumer durables.[136] In all three countries the need for a reduction of unit costs in both state and private enterprises, by means of lower protection and subsidies and greater exposure to competition, is being increasingly emphasised. The ability of Spanish industry to enlarge its volume of exports in very changed circumstances depends very largely on the success with which enterprises meet this need by a reorganization of their productive processes.

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[129] In scheduled undeveloped areas (where population density is greatest, agricultural incomes relatively low, and there is little industry) capital grants may cover the full cost of the installation of plant and up to one-half of the cost of machinery and equipment and of training workers. A grant may also be made towards the capital cost of supplying the locality with electricity. (Since 1952, such schemes have mainly affected textile factories and have provided employment for an additional 2 per cent of the manufacturing labour force.) Similar facilities extended since 1957 to other areas are limited to two-thirds of the cost of the plant, and one-third of the cost of machinery, with an absolute ceiling to the total.

[130] " Projects undertaken for economic reasons should not be distorted or frustrated by attempts to make them achieve non-economic ends " and " While recognizing the strong grounds of social policy for diverting industry from Dublin to the western counties, we would not wish to see such a diversion enforced if it endangered the success of a new productive enterprise." (*Capital Investment Advisory Committee, Third Report*, Pr. 4668, Dublin 1958.)

[131] For example, Eskisehir and Adana in Turkey, Augusta in southern Italy, Ptolemais in Greece and Zenica in Yugoslavia.

[132] For a detailed description of fiscal and other facilities granted for the development of industry in southern Italy see Banco di Roma, *Review of the Economic Conditions in Italy*, January 1959 (special issue), and for a similar description of measures designed to encourage investment in Irish enterprises see *Economic Development* (*op. cit.* pp. 231-234).

Reluctance to exercise greater public initiative in industry in southern Italy has been partly due to the expectation that the provision of the necessary infra-structure would be sufficient to attract private industry to the south on a scale which would render direct state participation unnecessary. The fact, however, that the rate of growth of the non-agricultural sector in southern Italy has been well below that envisaged in the Vanoni plan (non-agricultural output rose only 6-7 per cent annually between 1955 and 1958, against an expected rate of 11 per cent) has led to some reconsideration of official policies. Such reconsideration had already been advocated by some authorities (see P. Saraceno, ' The Vanoni Plan Revisited ', *Banca Nazionale del Lavoro Quarterly Review*, December 1957, p. 357, in which the author recommends that state enterprises should operate under exactly the same conditions as private undertakings).

[133] For example, the first and second six-year plans in Portugal; the preliminary five-year plan in Greece and the programme for economic expansion in Ireland, both covering the period 1959-1963; and the Vanoni plan, which set general targets for Italy as a whole and for southern Italy.

[134] See " Economic Planning and Management in Yugoslavia ", *Economic Bulletin for Europe*, Vol. 10, No. 3.

While the conditions of operation of state enterprises and their role in economic development are now being reconsidered in these three countries and particularly in Spain and Turkey, the three smaller countries and southern Italy have in turn been led to examine how far greater public intervention might be a desirable means of ensuring the attainment of their set objectives.[137] In these countries, direct state intervention has so far been restricted, with a few exceptions, to the conventional sphere of mining and public utilities; but it is recognized that economic development in the national interest may require the establishment of manufacturing facilities regarded by private enterprise as unprofitable or too risky and that in such cases the state may find it necessary to take the initiative.[138]

Considerations of the balance-of-payments and of social, rather than private, costs and benefits have in some countries led to a greater degree of state intervention; and even in those countries of the group where such considerations have not led to the creation of state-managed or state-sponsored enterprises, public authorities are becoming increasingly active in helping the private sector in many ways — by preparing blueprints of economically viable projects, by securing foreign and domestic financing and technical skills, and by providing necessary facilities.[139] Indeed, without a more active policy on the part of the state in Ireland and Portugal, a higher rate of industrial expansion than in the past (it has been particularly low in comparison with other countries of the group) is problematical. In Portugal, which has a strong foreign-exchange reserve position, a faster rate of domestic growth would be unlikely to create important strains, since an import surplus could, if necessary, be financed for some time without difficulty; but the balance of payments of Portugal may possibly be also adversely affected by calls for greater investment in the overseas provinces.

In Ireland the foreign exchange position has greatly deteriorated in the course of the past ten years. But having become a member of the IMF and IBRD

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[135] The plans include: a fertilizer plant of 100,000 tons capacity, a steel plant (present capacity to be raised to 600,000 tons), coal and lignite mines and cement factories.

[136] A number of private projects (e.g. production of tyres, a second car assembly plant, output of ferrochromium and chemicals) are in various stages of execution.

[137] It should not, on the other hand, be overlooked that state participation in industry in less-developed countries often raises special problems, such as management and efficiency, cost control and the tendency to seek, and obtain, special privileges — for example, when there is import licensing, etc. (See FAO, *Mediterranean Development Project*, p. 61 *et seq.*)

[138] The need has been particularly felt in Greece, where a number of projects are under study and plans, including arrangements for financing, have been completed. Through the new Industrial Development Organization (see above) and specially created mixed joint-stock companies, the shares of which may eventually be sold to the public, the government wishes to ensure that these projects, several of which have existed in one form or another on paper for a number of years, are effectively carried out, in co-operation with foreign capital and foreign consultants where necessary.

In Ireland, although emphasis remains on the provision of facilities for private enterprise, the state has declared its intention for reasons of public policy of sponsoring public projects for particular industrial schemes when it is considered unlikely that they will be initiated by private interests (e.g. a nitrogenous fertilizer plant). The few existing state-sponsored concerns will be encouraged to extend their activities to projects related to their main spheres of operation and to test the profitability of new lines and new markets. (See *Programme for Economic Expansion*, Pr. 4796, Dublin 1958, pp. 34 and 40.) In Italy, legislation was passed in 1957 whereby 40 per cent of all investment, and 60 per cent of all investment in new plants, undertaken by public agencies (IRI and ENI) must be in the south.

[139] Of the Greek projects referred to in footnote 138, mention should be made of the recently completed oil refinery, which is at present leased to a private operator, the expansion of the electricity-generating capacity and of the Ptolemais and Megalopolis lignite mines, and of projects for the establishment of a chemicals industry, production of fertilizer, beet sugar, aluminium, steel, cellulose and wood products. (For details concerning thirteen projects for which agreements with west German firms have already been initialled, see *Greece To-day*, National Bank of Greece, January 1960.) In addition, approval was recently given in principle to proposals for the investment of foreign capital for the establishment of factories for the production of tyres, hardboard, raw materials for plastic manufactures and nylon yarn, and for superphosphates. Further, similar investment proposals for the production of tractors, railway wagons and commercial vehicles are being studied. The second development plan of Portugal provides, *inter alia*, for the establishment of steel works (with a final capacity of 500,000 tons), the expansion of fertilizer output, an increase in oil-refining capacity, the establishment of a small aluminium industry, a machine-tool industry and car and tractor assembly. A reorganization of existing industries is also to be undertaken.

Ireland should be able, from these and other sources, to finance without qualms temporary foreign deficits incurred by the creation of productive assets. Emphasis is being placed on the development of Irish industries for export.[140] Given the smallness of the domestic market (Ireland's population is less than three million) new industries would in many cases be unable to operate without either permanent subsidy or tariff protection, unless a wider market can be tapped through exports. Similar considerations apply to the other small countries, such as Greece [141] and Portugal, and in most countries it is hoped that plants set up by private foreign capital will produce not only for the home market but also for export. More generally, and even in the bigger countries, such as Spain, which have practised or can more easily practise autarkic policies, albeit in pursuit of industrial development, there is a growing recognition of the need to establish industries that are export-oriented.

In Italy, the two state-sponsored organizations for industry (IRI and ENI) have drawn up investment programmes for the next few years, in which, in accordance with the law of 1957,[142] a large part of their investment is to be concentrated in the south. Much of past investment has been in electricity, transport and petro-chemicals, but a gradual transfer of emphasis is being made to steel and other manufacturing industries. A faster rate of industrial growth in southern than in northern Italy is unlikely, however, unless a more vigorous policy of industrialization is pursued to the point where self-sustained growth is firmly entrenched in the south.[143] Italy's participation in the Common Market opens up some prospects of greater international assistance in the development of the southern region — not so much in the form of investment finance (Italy's foreign exchange reserves now amounting to some $3 billion) as through the possibility of carrying out joint projects. Moreover, the employment of Italian labour in those countries of the Community which have potential labour shortages should help to alleviate the employment problems of the south.

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[140] Ireland has probably gone further than any other country in western Europe in encouraging export industries and in attracting private foreign capital for this purpose. An act of 1956 exempted 50 per cent of corporation profits from tax for five years, where such profits arise from new or increased exports. This was raised to 100 per cent (or alternatively 25 per cent of all profits) from April 1958, and the exemption period extended to ten years.

[141] Cf. Banque nationale de Grèce, *Problèmes de la balance des paiements en Grèce*, Athens 1958, pp. 82-84.

[142] See footnote 138.

[143] Cf. Camera dei Deputati, *Relazione della Commissione speciale per l'esame del disegno di legge " Provvedimenti per il Mezzogiorno "*, 1957; and E. Massacesi, " Tappe tecniche (e umane) per lo sviluppo del Mezzogiorno ", *Mondo Economico*, 29 November 1959, p. 10 *et seq.*

4. Capital Formation and Economic Growth

The Pattern of Investment

Two broadly distinct patterns of investment seem to have emerged in the countries under review. In Yugoslavia, nearly two-thirds of the very high total volume of investment expenditure was devoted to the commodity sector in the early fifties; this proportion fell to one-half as these investments matured and more resources could be diverted to infra-structure and other construction (see Table 23). Investment in the non-commodity sector was relatively more important in the other countries — varying from about two-thirds of total investment in Greece, southern Italy and Turkey to about one-half in Ireland and Spain. As has been pointed out above, investment in the commodity sectors in these countries is expected henceforth to absorb a greater share of the total.

Two important sectors, apart from industry and agriculture, in which much investment has taken place during the fifties are transport and communications, and housing.[144] In Greece and Turkey investment in transport and communications exceeded, and in Ireland and Portugal was only slightly smaller than, industrial investment. In Spain and Yugoslavia, on the other hand, investment in transport was much lower than in industry, although it has expanded very quickly in Yugoslavia in recent years. In nearly all these countries the railways are the main transport carrier, though in Greece, which has a large coastline and small hinterland, coastal traffic is also of some importance. The utilization of existing railway equipment is very low (except in Yugoslavia) and considerable scope would therefore seem to exist, particularly in Spain, for enlarging the carrying capacity of the railways by improved and quicker handling of traffic.[145]

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[144] For a discussion on costs and efficiency and investment in transport, see the SURVEY for 1956, Chapters V and VI.

[145] **Utilization of railway equipment in 1958**

	Greece	*Portugal*	*Spain*	*Turkey*	*Yugoslavia*
Density of traffic per km. of line					
Ton/km. (thousands)	174	207	598 [a]	649	1008
Passenger/km. (thousands)	344	470	653 [a]	654	753
Utilization of equipment					
Freight wagons					
Ton/km. per ton capacity (thousands)	2.8 [a]	5.2 [a]	5.9 [a]	..	9.5
Turn-round time (days)	..	4.1	11.0	6.6	6.6
Average haul (km.)	161	197	245	324	233
Locomotives					
Unit km.[b] per h.p.(thousands)	3.4 [c]	..	2.6 [d]	6.8	13.4 [a]

Source : ECE, *Annual Bulletin of Transport Statistics*, Geneva 1959.

[a] 1957.

[b] Unit km. calculated on the basis of 1 passenger/km. = 1 ton/km.

[c] 1955.

[d] 1956.

TABLE 23

Gross fixed capital formation by sectors in southern Europe and Ireland

Percentages of gross national product

Country and period	Total gross fixed capital formation	Commodity-producing sectors						Other productive sectors			Other sectors		
		Mining	Manufacturing	Construction	Public utilities	Total industry	Agriculture, forestry and fishing	Transport and communications	Other trades and services	Total	Dwellings	Public administration	Total
Greece													
1948-1949 . .	12.3	—	—1.6—		0.3	1.9	1.2	3.6	1.1	4.7	3.8	0.7	4.5
1956-1957 . .	15.4	0.2	—1.7—		1.4	3.3	1.2	3.2	2.7	5.9	4.7	0.3	5.0
Ireland													
1953-1954 . .	15.8	0.3	2.4	0.3	1.5	4.5	2.6	2.7	2.6	5.3	3.2	0.2	3.4
1957-1958 . .	13.4	0.2	2.1	0.2	1.3	3.8	2.5	2.7	2.5	5.2	1.8	0.1	1.9
Southern Italy													
1950-1951 . .	19.2	. .	. .	. .	. .	4.9	. .	. .	. .	. .	. .	. .	. .
1956-1957 . .	26.0	. .	. .	. .	. .	5.3	5.5	. .	. .	. .	5.7	. .	. .
Portugal													
1952-1953 . .	14.1	0.2	—3.2—		1.4	4.8	1.7	2.3	1.7	4.0	2.9	0.7	3.6
1956-1957 . .	15.1	0.2	—3.0—		1.8	5.0	1.6	2.3	1.6	3.9	3.7	0.9	4.6
Spain													
1954-1956 . .	14.9	. .	. .	. .	. .	5.8	2.1	1.3	. . [a]	. .	2.5 [b]	3.2	5.7
Turkey													
1948-1949 . .	9.3	0.6 [c]	0.9	0.1	. . [d]	1.6	1.0	2.3	1.8 [e]	4.1	2.6	. . [f]	2.6
1954-1955 . .	14.1	1.1 [c]	1.7	0.2	. . [d]	3.0	1.2	3.1	2.3 [e]	5.4	4.5	. . [f]	4.5
Yugoslavia													
1952-1953 . .	28.6	—13.0—		1.7	3.6	18.3	2.0	4.4	1.2	5.6	2.3	0.4	2.7
1957-1958 . .	25.6	— 6.6—		0.7	2.0	9.3	3.8	4.9	2.0	6.9	4.4	1.2	5.6

Sources and methods : See Appendix B.

[a] Included in dwellings.

[b] Including other trades and services.

[c] Including public utilities.

[d] Included in mining.

[e] Including public administration.

[f] Included in other trades and services.

Industrial investment in Yugoslavia, even since the fall from the exceptionally high level of the early fifties, represents more than 9 per cent of national output (against the former 18 per cent) — or some two to three times the proportion in other countries of the group and is higher than in most of the industrial countries of western Europe. There has consequently been a rapid growth of industrial output, which rose from 29 per cent of total output in 1947 to as much as 45 per cent in 1958. But in the other countries of the group industrial investment accounts for only 3 to 5 per cent of national output, which is some one-half, or more, of the proportion in most of the industrial countries. In Spain and Turkey, where more active use has been made of the public sector in promoting industry, the share of industry in total investment rose until the emergence of strong inflationary pressures led to a reappraisal of investment policies in the light of import possibilities. In the smaller countries, on the other hand, where — with the exception of Greece — industrial growth was rather slower and where governments have done less to stimulate industrial investment (whether through public or private enterprise), the proportion of national resources devoted to such investment has been stable or has fallen — particularly sharply in Ireland.

In most countries of southern Europe, private savings are more easily attracted to those forms of investment in which returns are considered higher and risks smaller. Investment in housing was greater than in industry in Greece, southern Italy and Turkey, and its share in total investment rose in all countries other than Turkey and Ireland.[146] Although there seems to have been a resultant net increase in the availability of housing in Ireland and some southern European countries, the current rate of construction has been insufficient to provide for the needs of the expanding population in Portugal, Turkey and Yugoslavia.[147] Even without any reduction in total investment in housing, it seems very probable that in the majority of these countries more housing could be made available from a given level of investment if the construction of luxury buildings were more severely restricted.[148]

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[146] In Turkey this was the result of restrictive official policies; in Ireland a major post-war public investment programme in housing has now passed its peak, and though housing has taken a declining share of total investment, the volume of resources devoted to it has not escaped criticism. See *Capital Investment Advisory Committee, Second Report* (Pr. 4406), Dublin 1959.

The comparative reluctance of private capital to invest in industrial ventures has led some governments either to attempt to create more favourable conditions for private enterprise, as discussed in the preceding section, or themselves to undertake investments which they consider essential for economic development. Since future expansion depends so much on industry, more vigorous policies for promoting industrial investment will no doubt be necessary. While this is no mean task, a hypothetical illustration may help to suggest the order of magnitude involved. As was observed above, national output has grown at 4 per cent or more per year in most of these countries in the last decade. If, in any one year, even half of this additional output were devoted to industrial investment, it would immediately raise the present annual volume of industrial investment by as much as one-half to two-thirds. Clearly, therefore, even a relatively modest shift in the allocation of additional resources could have important implications for the level of industrial investment and hence for industrial growth.

The relatively low level of industrial investment so far in all these countries (except Yugoslavia) has meant that machinery and equipment have taken a much smaller share of total investment expenditure than in the industrial countries of western Europe. As shown in the table below, only one-third to two-fifths of total investment in southern Europe is in machinery and equipment, as opposed to one-half in the industrial countries; the share of construction is correspondingly higher.

Share of construction, machinery and equipment in total gross fixed capital formation

Percentages

Country and period	*Construction*		*Machinery and equipment*
	Total	*Of which: Residential*	
Greece (1956-1957)	67	31	33
Ireland (1957-1958)	58	13	42
Portugal (1957-1958)	70	21	30
Spain (1955-1956)	60	..	40
Yugoslavia (1956-1957)	45	14	55
United Kingdom (1957-1958)	47	17	53
Netherlands (1957-1958)	50	21	50
Belgium (1957-1958)	54	29	46

Sources: OEEC, *Statistical Bulletins, General Statistics*, January 1960; and national statistics.

The actual machinery and equipment content per unit of total fixed asset formation in these countries is, however, likely to be even lower than implied in the above table, since trade and transport margins tend to constitute a greater proportion of final value when equipment is imported than when it is domestically produced. Moreover, the direct labour content per unit of investment in the less-industrialized countries is higher than in the industrialized, especially in construction, because of the limited use of capital equipment. This simply reflects, of course, the relative demand and supply position for labour and capital in the two groups of countries; but it follows that for each unit of investment the direct generation of wage income is greater in the less-industrialized than in the industrialized countries, whereas, owing to the relatively low content of machinery and equipment, there is at the same time a relatively smaller rise in productivity and output. Thus, the investment structure in the less industrialized countries has a built-in bias towards a greater generation of money incomes in relation to output. Such an investment pattern, by limiting direct import requirements, makes a relatively small claim on external resources; but since it generates relatively more domestic income than output, the maintenance of internal balance between the flows of incomes and output becomes rather more difficult. If the productive capacity of these economies is to be enlarged, it would plainly be necessary to raise the proportion of machinery and equipment in total investment, as was done in Yugoslavia. By necessitating large imports, this process would temporarily increase pressure on the external account, but by generating more output in relation to income would somewhat ease the difficulties of maintaining internal economic equilibrium.

If the most effective use of scarce investment resources and surplus manpower is to be made, the investment policies in these countries would need not only to be based on a higher volume of imports of machinery and equipment but also to satisfy three other conditions: first, the mobilization of unemployed and under-employed labour resources for the creation of social capital (small-scale irrigation works, reafforestation, roads, schools, etc.) and, so far as is possible, the enlistment of voluntary labour through community development or other schemes; second, the accomplishment of a rapid rise in agricultural output by propagating modern techniques, and the exploitation (by means of shift work where appropriate) of existing unused capacity in both the modern and the small-scale industrial sectors, and in the transport network; and third, the introduction of the latest techniques when entirely new industries or units are established.[149] The first condition would provide greater employment and money incomes with a relatively small immediate rise in output, and the second would also raise employment, but output much more; neither condition would make more than a limited claim on vital investment resources. The third, in contrast, would have a relatively minor impact on domestic employment and money incomes, but would ultimately — and in some cases quite rapidly — increase output, including that for export, and would help to raise the level of technical skill.

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[147] In Portugal the percentage of housing benefiting from public financial assistance is very low. See *Financing of Housing in Europe*, ECE, Geneva 1958, p. 42.

[148] *Ibid.*, pp. 16-17.

[149] In many cases — for instance in the chemical and engineering industries — technical considerations determine the combination of factor (capital and labour) inputs; in others, where factor combinations can be varied, it should be possible to weigh the relative costs of capital and labour and apply a technique which makes the most economic use of scarce capital and cheap labour.

Investment and the Rate of Growth

Since the end of the war the share of national product devoted to capital formation has risen in all the countries under review except Ireland, and in most of them amounts to about 15 per cent (see Table 23), compared with 20 per cent or more in most of the industrial countries in western Europe. The level of investment in southern Italy and Yugoslavia, at about one-fourth of national output, is even higher than in most industrial countries. It is striking that some 80 years ago, when Sweden and Denmark had a level of per capita income comparable with that of southern Europe to-day, their ratio of gross investment to national product was 8 to 10 per cent.[150]

Given the obvious need to make the most efficient use of scarce capital, it is of great interest to analyse, in a longer-term perspective, the recent investment effort and its impact on output growth. It should, of course, be borne in mind that the period covered is rather short and that special factors often influenced the past pace of growth of output. Moreover, methods of estimation and the coverage of the data are not sufficiently uniform to allow precise conclusions to be drawn.

As indicated in the table below, there seems to have been no direct relationship between the share of resources devoted to investment and the rate of growth of the economy. Ireland, Portugal and Greece[151] have invested about 15 per cent of their gross national product in recent years, but the annual rate of growth of output varied from over 7 per cent in Greece to a little over 1 per cent in Ireland. Similarly, gross capital formation as a share of gross national product in Turkey was less than one-half of that in southern Italy and Yugoslavia, but the differences in their annual rates of growth were minor. The marginal capital/output ratios varied from 2:1 in Greece, to around 3:1 in Turkey and Yugoslavia, about 4:1 in southern Italy and Portugal and over 10:1 in Ireland.[152]

Investment, output and marginal capital/output ratios

Country and period [a]	*Gross fixed capital formation as a percentage of gross national product*	*Annual percentage rate of increase in gross national product*	*Marginal capital/output ratio*
Ireland (1948-1958)	15	1.3	12.4
Portugal (1950-1958)	15 [b]	3.2	4.3
Southern Italy (1950-1957)	24	5.9	4.0
Yugoslavia (1948-1959)	27 [c]	6.9 [d]	3.5 [d]
Turkey (1948-1956)	12	5.2	2.7
Greece (1950-1957)	14	7.5	2.0

Sources and methods : See Appendix B.

[a] Arranged in descending order of the marginal capital/output ratio.

[b] 1952-1958.

[c] 1952-1959.

[d] For the period 1952-1959 the annual growth rate was 11.6 per cent and the marginal capital/output ratio 2.5 : 1.

Among these countries, there was a close association between a low capital/output ratio and a high rate of expansion of output, suggesting that although investment is a very important element in raising output, neither its total volume nor its rate of growth can alone account for the rate of overall growth. Thanks to a combination of factors certain countries attained a high rate of growth and a low capital/output ratio and thus made a relatively more " efficient " use of scarce investment resources. The importance of these factors has already been stressed above; they include the structure of investment, and a set of social, economic and institutional factors which defy any precise statistical measurement, such as the ability to mobilize the unemployed and under-employed manpower for socially necessary capital works, to raise yields by the widespread application of simple but highly productive modern agricultural techniques and to attain a more intensive exploitation of existing modern equipment.[153]

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[150] A. J. Youngson, *Possibilities of Economic Progress*, Cambridge 1959.

[151] Owing to the civil war, the post-war recovery in Greece came later than in the other countries of the group, and the high rate of growth with relatively limited investment reflected in part the process of recovery.

[152] For Spain the marginal capital/output ratio is estimated to have been 3.2 : 1 for 1946-1954. (See P. Ortega, " La relación capital-producto en España ", *De Economia*, September-October 1957, pp. 434 *et seq.*) For the OEEC countries as a whole it works out at 3.6 : 1 for 1948-1958, but if the last two years of slow growth are excluded it is 3.1 : 1. The ECLA has estimated it to have been 3.1 : 1 for the Latin American countries during 1945 to 1952, while it increased to 4.1 : 1 for the period 1950-1956, when the rate of growth of output gradually slowed down (see *Economic Survey of Latin America 1951-1952*, New York 1954, p. 17 and *Economic Survey of Latin America 1956*, New York 1957, p. 3).

In eastern Europe and the Soviet Union the ratio has varied from 2 : 1 to 3 : 1 between 1950 and 1954 or 1955 (see *Economic Survey of Europe in 1955*, p. 201). For mainland China, W. Malenbaum estimates the ratio to be 2.2 : 1 for 1950-1957 (see his " India and China: Contrasts in Development Performance " in *The American Economic Review*, June 1959, p. 298).

For nearly half a century in the United States (1879-1929) the ratio was 3 : 1. For 30 years (1896-1929) in Sweden it was 3.3 : 1 (see H. Leibenstein, *Economic Backwardness and Economic Growth*, New York 1957, p. 246). For the Soviet Union a recent estimate gives a capital/output ratio of 3.0 : 1 or possibly somewhat lower for the period 1927-1937 (see A. Eckstein and P. Gutmann, " Capital and Output in the Soviet Union 1928-1937 " in *The Review of Economics and Statistics*, November 1956, pp. 438-439).

The evidence is not adequate either to indicate a definite long-term trend or to suggest, *a priori*, any given capital/output ratio as suitable for a particular country; and much depends on the institutional and economic characteristics of the country in question. The experience of a number of countries, however, suggests that the capital/output ratio ranges between 3 : 1 to 4 : 1 and has rarely been over 4 : 1 (except in periods of very slow growth) and that a relatively high rate of growth has been most usually associated with a low capital/output ratio. (For detailed data relating to 30 countries, see John H. Adler, " World Economic Growth — Retrospect and Prospects " in *The Review of Economics and Statistics*, August 1956, p. 274.)

The task of economic development transcends, of course, the purely economic sphere and cannot be isolated from political, social, and other non-economic considerations. For example, the achievement of universal literacy and of a minimum standard of further education is a precondition for thoroughgoing technical training; and in general the wide scope of public intervention that seems inescapable presupposes both a minimum of efficiency and integrity in public administration and the availability of qualified manpower. Yet ultimately the success of any development programme depends on whether a spirit of enterprise, of enthusiasm — and if necessary of sacrifice — for the achievement of the desired aims can be inculcated in the whole population in the undoubted interest of all.

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[153] This is what is broadly termed " the human factor ". See Odd Aukrust, "Investment and Economic Growth", *Productivity Measurement Review*, European Productivity Agency, Paris, February 1959, p. 37.

APPENDIX TO CHAPTER VII

RECENT EXPERIENCE IN RAISING AGRICULTURAL OUTPUT IN YUGOSLAVIA

Background and Summary

Although the soils in Yugoslavia, particularly in the Vojvodina and some of the northern regions of Croatia, are rather more fertile than in other southern European countries, yields of crops and animal husbandry were almost as low throughout most of the period for which statistics are available as those in other countries of the region (see Chapter VII, Table 3). In the context of the first Five-year Plan (1947 to 1951), which set the ambitious target of raising national agricultural output by some 50 per cent, first state farms and later (1948-1949) large collectives were established; but average yields per hectare of some crops remained virtually unchanged — even on the most fertile state farms in the Vojvodina region — and were often lower than on well-managed private farms.[1] Fertilizer consumption, at 2 kg. per hectare, was very low; there was little improvement in agricultural techniques; and national agricultural output stagnated until 1954-1955. Against this background, and after some controversial debate, it was decided that only by a thoroughgoing and widespread transformation of agricultural technique could agricultural yields be raised.

In consequence, a fundamental change in agricultural policies was introduced from 1952 onwards. Forced collectivization and compulsory deliveries were abandoned, prices paid to farmers were raised, the tax burdens on them lightened, and a determined drive to attain higher yields was launched. These measures, and the resultant increase in the supply to rural areas of both consumers' goods and the means of production (fertilizer, tractors, etc.) provided both the incentive and the wherewithal for higher output. At the same time, a greater share of investment resources was allocated to agriculture — emphasis being placed on quick-yielding investments — and on a combination of those inputs which raise agricultural yields in a short time. The application of new techniques and the provision of resources was concentrated on a limited — but progressively widening — geographical area, thus avoiding a dispersal of effort.

If a two-year moving average is taken, in order to eliminate the effect of harvest fluctuations (which tended to form a two-year cycle), the trend of output has moved sharply upward since 1955-1956: in fact, the annual rate of growth in the last three years has been as high as 10 per cent.

Gross value of agricultural output

Moving average of two calendar years : index numbers, 1955-1956 = 100, derived from values at 1956 prices

	1951-1952	*1952-1953*	*1953-1954*	*1954-1955*	*1956-1957*	*1957-1958*	*1958-1959*	*1959*
Crops	87	85	96	97	110	123	135 *	157 *
Livestock	80	85	98	104	106	115	132 *	146 *
Total	85	85	97	100	109	121	134	154

Source : Information supplied by the Federal Statistical Office ; and *Službeni List*, 30 December 1959.

Crops. — From Table 24 it can be seen that the national average yield of wheat (15.6 quintals per hectare) for the two years 1958 and 1959 was more than 50 per cent above the average for the years 1953 and 1954 (or for the last half-century) — and similar improvements were obtained for yields of maize and sugar-beet. The increase in yields in the Vojvodina — the most fertile part of the country, with the highest proportion of state and co-operative farms (one-fourth of the total area) and the greatest concentration of resources — was proportionately greater, but substantial increases also occurred in other, less fertile and even mountainous regions, such as Bosnia, Herzegovina and Montenegro.

Livestock. — The fact that output of livestock has kept pace with crop production since 1952 is due not only to increased output of fodder — particularly to improved methods of its

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[1] Cf. *Economic Survey of Europe in 1953*, p. 116.

TABLE 24

Indicators of agricultural development in Yugoslavia

	1954	1955	1956	1957	1958	1959	1960 Plan
Yields							
Wheat	*Quintals per hectare*						
All varieties							
National average	7.5	12.8	9.9	15.8	12.3	18.9	23.0
Vojvodina	8.6	16.3	13.2	18.9	14.5	25.6	27.0
Serbia	6.8	11.2	8.6	14.7	9.8	17.2	..
Croatia	7.6	14.3	9.6	17.0	15.1	19.4	..
Slovenia	11.3	13.8	12.1	15.3	16.0	17.4	..
Bosnia and Herzegovina	5.1	9.9	6.1	11.3	9.1	12.9	..
Macedonia	7.4	9.4	9.3	12.7	12.4	15.4	..
Montenegro	6.2	8.6	7.5	8.5	9.3	14.7	..
Italian strains							
National average	—	—	..	28 *	35.0	37.5	..
Vojvodina	—	—	..	30 *	38.3	43.7	..
Other areas	—	—	..	27 *	32.6	33.7	..
Maize							
All varieties							
National average	12.2	15.8	13.1	21.9	16.5	26.2	..
Vojvodina	19.9	21.6	20.8	32.1	29.2	38.1	41
Other areas	9.7	13.9	10.9	18.5	12.0	22.2	..
Hybrid maize							
National average	—	—	..	31 *	39.0	46.2	..
Vojvodina	—	—	..	39 *	43.0	50.5	..
Other areas	—	—	..	28 *	32.9	42.6	..
Sugar-beet							
National average	159	198	163	246	207	308	..
Vojvodina	173	215	193	265	226	325	..
Other areas	139	179	129	223	194	287	..
Area and output	*Percentage of the total* [a]						
Italian wheat							
National average	—	—	..	1 *	1.8 (2.8)	15 (29.9)	40 [b]
Vojvodina	—	—	..	1.6 *	2.7 (4.0)	24.8 (42.3)	48 [b]
Hybrid maize							
National average	—	—	1.2	3.5	9.5 (22.5)	16.7 (29.5)	30
Vojvodina	—	—	3.0 *	10 *	22.0 (32.3)	31.0 (41.3)	50
Gross fertilizer application	*Kg per hectare of arable area*						
National average	38	36	59	100	128	183	222
Vojvodina	25 *	35	84	189	278	362	450 *
Other areas	40 *	36	41	76	89	132	160 *
Tractor numbers	*Hectares of arable area per tractor*						
National average	..	856	517	373	318	255	219
Vojvodina	..	482	248	178	167	133	..
Other areas	..	1 091	750	725	523	325	..
Fixed investment in agriculture	*Billions of dinars, 1956 prices*						
State investment	20	30	35	55	75	90	100
Private investment	5 *	8 *	10 *	18 *	25 *	30 *	..
Prices and incomes	*Index numbers 1952=100*						
Prices received by farmers	119	144	154	155	159	160	..
Prices of industrial products [c]	91	96	100	101	102	102	..
Agricultural terms of trade [d]	131	150	154	153	156	157	..
Cash receipts of farmers [e]	204	223	232	313	319	..	..

Sources and methods : See Appendix B.

[a] Figures in brackets relate to the percentage of output, and all other figures to the percentage of sown area.

[b] Actual figure.

[c] Manufactured foods excluded.

[d] Ratio of index of prices received by farmers to index of prices of industrial products.

[e] Sales to state and co-operative purchasing agencies only.

conservation and use — but partly also to better breeding. Both factors have contributed to raising milk yields per cow and carcase yields of meat. Meat output was almost 80 per cent higher in 1959 than in 1952 (when it was still about one-fourth below pre-war), although cattle numbers rose by only 10 per cent: milk output rose more than 80 per cent, although the number of cows increased by less than 20 per cent. Output of livestock products is expected in future to rise rather faster than that of crops.

During the whole period since 1952 the increase in output has been achieved with a steadily diminishing agricultural labour force.

The Technical Means of Raising Yields

Four factors have been used in combination in order to raise crop yields: improved types of seed (for wheat — mostly Italian strains; and for maize — hybrid Nebraska, Wisconsin or Kansas); a minimum application of 400 kg. (gross) of fertilizer per hectare; deep ploughing to at least 20 cm. (and in some regions up to 40 cm.); and thicker sowing of seed.[2] Success depends very largely on the combination of all four factors; but in some areas outside the main experimental zones the technique has been partially applied (e.g. improved seed and deep ploughing — but with less than the optimum application of fertilizer), with proportionately smaller increases in yields.

Italian wheat strains, when sown deep, have proved more resistant to both droughts and frost. Deep ploughing, in conjunction with adequate fertilizer to promote root growth, enables the plants to penetrate the moist lower layers of soil. Fertilizer is also necessary to compensate for the greater exhaustion of the soil which follows the use of improved seed; but after the initial period the amount applied can be reduced without affecting yields. This combination of factors, by preserving humidity, considerably reduces annual variations in yields due to changing rainfall; in 1958, a year of unfavourable weather, yields in areas which applied the combined technique did not fall, in contrast to the experience of the rest of the country.

The increased use of improved seed and of fertilizer raises costs per hectare, but not per unit of output. Thicker sowing of seed adds more to costs than the cost of the additional quantity required since, although the work involved is the same, more fertilizer is required. In 1958 the cost of 100 kg. of wheat produced from domestic strains was 3,690 dinars and of wheat from Italian strains it was 2,670 dinars; in 1959 the cost was respectively about 3,000 and 1,800 dinars. The cost of cultivating Italian wheat tends to fall in time as increased skill in the application of fertilizer and, in general, greater experience in technique is gained. The cost relationships for maize are similar. On a steadily widening area maize and sugar-beet are being cultivated in interwoven strips so as to provide more sunshine and air. This system has produced maize yields of 100 quintals per hectare and yields of sugar-beet of 500 quintals per hectare. Similar experiments with wheat are now being carried out.

The differences in yields between areas applying the full technique are illustrated in Tables 24 and 25.[3] The area sown to Italian wheat and hybrid maize has expanded not only in the Vojvodina but also (and increasingly) in other regions; and because of the higher yields attained, the contribution to increased output has been greater than even the percentage increase in area. It is largely because of the expansion of this area between 1957 and 1959 that national average yields in 1959 were larger than in the record year of 1957 despite less favourable weather. In fact, virtually the entire increase in maize and wheat output in 1959 was accounted for by the area in which the improved technique and improved seeds were used in conjunction; whereas on the area sown with domestic strains there was hardly any change in yields (see Table 25).

Various methods have been used to increase livestock output. First, systematic fattening on state and co-operative farms, and also on private holdings, has expanded from 37 thousand head of cattle and 600 thousand pigs in 1957 to 241 thousand and 1.1 million in 1959 respectively (and the Plan for 1960 aims at 740 thousand and 4 million). Second, the number of cattle carried on state and co-operative farms has been increased (from 150 thousand in 1957 to 335 thousand in 1959, and a planned 947 thousand by 1961) and pig numbers have also risen substantially. The expansion has been in pedigree livestock, in order both to improve breeds on individual farms and to raise beef and bacon output. Third, breeding has been improved through imports of pedigree livestock, and by their extensive cross-breeding with domestic breeds.[4] It is planned to raise fodder output substantially to meet the consequent expansion of demand.

Agricultural Investment

In order to minimize the costs involved in increasing the number and quality of livestock, open stables have been constructed and silage simplified. Although this has resulted in some loss of milk yields and higher fodder consumption, there is a greater supply of much-needed manure; at the same time the incidence of tuberculosis among cattle has been reduced and the average weight of animals increased. Such investments also yield some saving in manpower.

The most important single item of investment needed, however, is in tractors — principally for deeper ploughing.[5] Tractors have also facilitated timely sowing and harvesting, and have supplemented and progressively replaced horses or oxen. Moreover, where maize and wheat are grown in rotation, mechanization is necessary for harvesting maize in good time before the autumn sowing of wheat.

Methods of Propagating the Technique

Experiments with the new techniques were first made on state and co-operative farms and, as results were achieved and supplies increased, these farms began to collaborate with individual farmers who wished to apply the same methods. Another important agent for propagating the techniques — particularly in regions (outside the Vojvodina) with fewer and widely dispersed state and co-operative farms — is the general co-operative, which contracts to supply material inputs and services to the individual farmer or otherwise participates in the process of production. The increased prosperity of state and co-operative farms has in fact been a most powerful means for

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[2] In much of the area sown to improved seed the density of wheat plants was raised from 250,000 per hectare to as much as 500,000 or even more and for maize from 20,000 to 45,000 per hectare. On one large farm near Belgrade, sowing 45,000 maize stalks per hectare and applying 600 kg. of mixed fertilizer or 800 kg. of simpler types resulted in yields of 70 to 80 quintals per hectare in 1958, against 30 quintals when only 20,000 stalks per hectare were sown and application of fertilizer was only 200 kg.

[3] Success has in fact been greater than expected. Thus, the Five-year Plan (1957-1961) assumed yields in 1961 of 16.9 quintals per hectare for wheat (1959 actual 18.9), 22 quintals for maize (1959 actual 26.2), and 260 quintals for sugar-beet (1959 actual 308 quintals). *Službeni List*, No. 53, 1957.

[4] The following figures indicate the importance of imports of pedigree livestock: out of 947,000 head of cattle that state and co-operative farms plan for 1961, 197,000 will come from a natural increase in existing stock, 656,000 from purchases from individual farmers and 94,000 from imports of pedigree breeds.

[5] Irrigation of certain areas would also help to raise yields. Of even greater importance for safeguarding harvests are investments in flood protection and in drainage, and these have been considerably expanded in recent years.

TABLE 25

Yugoslavia: Areas and yields of farms applying the new agricultural technique

Year and type of farm	All farms			Farms applying the new technique											
				Wheat				Maize				Sugar-beet			
	Arable area per tractor *(ha)*	Gross fertilizer consumption per ha of cultivable area *(kg)*	Estimated area sown to improved wheat and maize seed *(Percentage of total sown area)*	Area		Yield	Output	Area		Yield	Output	Area		Yield	Output
				Thousand ha	*Per-centage of total*	*Quintals per ha*	*Per-centage of total*	*Thousand ha*	*Per-centage of total*	*Quintals per ha*	*Per-centage of total*	*Thousand ha*	*Per-centage of total*	*Quintals per ha*	*Per-centage of total*
State farms															
1955	90	124	—	50	2.8	17.9	4.1	64	2.6	20.1	3.3	6	7.9	193	7.8
1956	73	238	—	41	2.6	15.4	4.0	58	2.2	21.5	3.7	6	8.8	153	8.5
1957	59	548	15	59	3.0	23.5	4.5	68	2.6	37.8	4.5	8	9.2	283	10.6
1958	46	774	30	71	3.6	24.9	7.2	70	2.9	42.9	7.6	8	10.8	262	13.7
1959	..	900 *	80	94	4.4	44.0	10	72 *	2.8	55.0	7.0	8 *	9.8	373	11.9
Co-operative farms															
1955	107	93	—	56	2.9	17.3	4.0	52	2.1	20.3	2.7	6	8.0	204	8.4
1956	83	202	—	41	2.5	15.4	4.0	45	1.7	22.7	3.0	6	8.5	196	10.3
1957	64	581	10	47	2.3	22.1	3.3	50	1.9	35.7	3.2	7	8.8	275	10.0
1958	49	914	28	42	2.1	22.6	4.0	47	2.0	39.7	4.7	8	11.0	222	11.9
1959	..	900 *	80	83	3.8	42.0	8.5	50 *	1.9	52.0	5.0	9 *	11.0	345	12.3
Individual farmers collaborating with co-operatives															
1958	..[a]	300 *	30	76	3.8	18.0[b]	5.6	54	2.3	39.3	5.4	..	..	..	..
1959	..[a]	450 *	80	232	10.9	27.8[b]	16.1	310	12.0	45.0	20.6	..	..	..	..
1960	..[a]	600 *	100	465	23.0	..	..	608[c]	23.4	..	..	..	22[d]	..	..
Other individual farmers															
1955	2 600[a]	48[e]	—			12.5 *				15.3 *				201	
1956	948[a]	48[e]	—			9.5 *				12.9 *				157	
1957	622[a]	69[e]	—			15.2				20.8				238	
1958	465[a]	94[e]	—			11.9				14.2				158	
1959	..	110 *[e]	—			15.6				22.1				280 *	
1960	..	150 *[e]	7.3			..				..					

Sources : National statistics, and information supplied by the Federal Statistical Office. (For state and co-operative farms in 1959: *Privredni Pregled,* 29 November 1959.)

NOTE. — For wheat, area sown refers to the autumn preceding that of the year shown.

[a] General co-operatives perform most ploughing for individual collaborating farmers and some for individual farmers who do not collaborate. The availability of tractors shown therefore represents the stock of tractors outside state and co-operative farms divided by the corresponding arable area.

[b] Yields obtained exclusively by those who collaborated fully were 20.6 quintals in 1958 and 39.1 quintals in 1959.

[c] Plan.

[d] Serbia only.

[e] Per hectare of arable area.

overcoming the peasant's resistance to and suspicion of change and for inducing him to improve his efficiency and lower his costs so as to be able to meet competition from the bigger farms.[6]

Though co-operation takes many forms (depending partly on the financial means at the disposal of the co-operatives), three broad types can be distinguished in the cultivation of crops. First, services and technical assistance are supplied to individual farmers at special prices, usually on credit terms and often accompanied by contracts for the produce. Services may consist of supplying selected seeds, seedlings, saplings, fertilizers and pedigree livestock and of ploughing and harvesting, or even include the sale of product on behalf of the independent peasants by the co-operative. In addition to its contractual obligation to supply such services, the general co-operative may undertake to buy the whole crop at guaranteed prices, but in this case the farmer is also bound to till the soil according to the co-operative's instructions.

Second, the co-operatives may participate partially, but more directly, in the production process, and receive in return a share in the individual farmer's profit. In such cases the co-operatives usually provide basic supplies on credit and may also participate in tilling and other operations. Tilling of the land is partly undertaken by the co-operatives, and the use of materials is governed by agreements with them. They bear the whole risk and undertake to buy the whole output at guaranteed prices, subject to the work being done to their specifications.

Third, the co-operatives may be in full partnership with the individual farmer, with profits distributed proportionately to the respective contributions of the two parties to the financing, and specific tasks assigned to each. Usually the co-operatives do the major work involving the use of heavy machinery and provide all forms of technical assistance, while the tilling is left to the farmers themselves. Costs are calculated for each of these operations and for the supply of materials (which may be financed either jointly or entirely by the co-operatives). Apart from the profit sharing mentioned, some further incentive may be given to the individual farmer: the co-operative may renounce all or part of its share of the profit in anticipation of a larger total for distribution in subsequent years as yields rise.

From Tables 24 and 25 it can be seen that the adoption of the new techniques by individual farmers has been steadily increasing and that by 1959 Italian wheat strains were sown to 40 per cent of the total wheat area (roughly 50 per cent in the Vojvodina); for hybrid maize the corresponding proportion was 25 per cent (in the Vojvodina 31 per cent). The area is to be substantially increased in 1960, and it is probable that the co-operatives will be unable to meet all requests for their help. Even in the autumn of 1959 about 150 thousand hectares were already sown to Italian strains by individual farmers without any help from co-operatives.

For animal husbandry, too, co-operation takes many forms. Co-operatives may provide both good breeds for fattening, and technical assistance. Where this is done on credit, repayment may be made in kind, the fattened animals being returned at a fixed price. Co-operatives may also share the current costs of production — e.g. by supplying certain types of feed, particularly processed ones — in which case they also supply their own veterinary experts. In return, they receive an agreed lump sum, payment in kind, or a share of the profit. Another alternative is for the farmers to fatten or breed animals from their own stock, with co-operative assistance and advice, and to contract the whole output, provided it meets specified standards, to the co-operatives. Similar arrangements exist for orchards and vineyards.

Guaranteed prices are an integral part of the whole system, and because of the prospects of considerable savings through a lowering of costs per unit of output, the general co-operatives are able to offer prices that make collaboration attractive to the individual farmer.

Efficiency of Small Farms

Through co-operation as described above, it has proved possible to adapt the new agricultural technique to small individual farms and to raise their efficiency, thus enabling the individual farmer to increase substantially his income and productivity notwithstanding the limitation on the size of individual holdings. The increase in productivity has resulted partly from higher investments, which in recent years have constituted a rising proportion of total expenditure in individual farms.

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[6] A recent law provides for a compulsory minimum application of the new technique when sufficient supplies are available and voluntary application has not taken place.

CHAPTER VIII

PROBLEMS OF EXTERNAL AND INTERNAL BALANCE

In any economy the long-term rate of expansion is linked with the level and rate of growth of investment that can be maintained; but, as has been indicated in Chapter VII, the relationship is not a simple one — particularly in economies of the type under review. The structure of investment and the efficiency with which related current inputs — of know-how, of labour, and of other factors — are linked with available real capital may be almost as important for the rate of development as the level of investment itself; and the problem of assuring the efficient use of capital in this sense is complicated by the small size of most of these countries and the limited range of both their agricultural and industrial development.

As these countries strive to accelerate their industrialization, and in doing so raise the level of investment, the structure of demand tends to change ahead of the structure of output; in particular, the gap between the domestic demand for, and the supply of, capital goods widens — even if investment demand does not outpace the flow of domestic saving plus the import surplus.[1] The more restricted the natural resource endowment and the narrower the production structure, the larger is the share of imports of materials and equipment necessary for any increment of output outside a few very special fields.

Thus import possibilities play a key role in the development of these countries. Like any other country, they face the fact that domestic investment can be no higher than domestic output *minus* consumption *plus* any import surplus that can be financed by external aid, borrowing, or disinvestment; and their difficulties in raising the rate of domestic saving (i.e. keeping the growth of consumption below that of output) are aggravated by the present low levels of per capita incomes and by institutional weaknesses. But, in addition, the growth of output will inevitably be linked for some years to come with rising inputs of imported materials and equipment and, even in the very long run, it seems likely that these countries will be able to avoid a high degree of dependence on imports only at the price of a heavy sacrifice of the gains from international trade. Hence, while the availability of generous external credit or aid during the next fifteen or twenty years might simultaneously ease the problem of raising total saving and mask that of enlarging exports, it would be unfortunate if the opportunity were thus missed to build up exports to sustain the eventual high trade content of output that will be desirable. This does not mean that all " import saving " development must be undesirable or unnecessary: a change in the present trade pattern will certainly be required in most of these countries. It does mean, however, that economic policy should be continuously designed not merely to tailor domestic demand for consumption and investment to the total resources available from domestic output plus the import surplus (while raising domestic saving and thus the rate of investment) but also to encourage external balance at a high rather than a low level of trade turnover, so that exports rise in the wake of, even if not *pari passu* with, growing output.

The following section of this chapter discusses, by reference to past experience, the problem of " external balance " — seen here as that of both ensuring the growth of trade necessary in the long run to support an economic pattern of activity in those countries, and making the most efficient use in the short term of available import possibilities (on the, probably reasonable, assumption that external aid or credit will nowhere be so generous as to remove all the short-term problems of ' partial imbalance ' linked with scarcity of imports.) The second section discusses problems of internal balance — the past experience of adjusting domestic consumption and investment to the resources available from domestic output and the import surplus, and the extent to which it has proved possible to raise domestic saving.

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[1] In Yugoslavia, these difficulties are already largely a thing of the past, due to the early emphasis given to the development of the capital-goods industries.

1. PROBLEMS OF BALANCE ON EXTERNAL ACCOUNT[2]

(a) Imports and the import surplus

The Size of the Import Surplus

Available statistics of merchandise and invisible trade suggest that most or all of the group of countries under review were importers of capital in the twenties. With the onset of the great depression, the concomitant breakdown of the international capital market, and the abrupt contraction of world trade, the payments position of these countries, like that of other debtor countries, was transformed: the servicing of debt tended to exceed the dwindling inflow of new capital. For the countries as a group, visible exports covered some three-fourths of the value of visible imports in 1937-1938.[3] In the post-war years, balances of payments have returned to their earlier, more normal positions, inasmuch as all of these countries have been net recipients of long-term capital (and grants) during the 1950s, though on a smaller scale in Spain and Portugal than elsewhere.[4] (See Table 1 and Appendix Table XXV.)

As is shown in the following table, there has been no uniform trend in the movement of foreign exchange reserves since 1950. In Greece, official gross holdings of foreign exchange and gold have varied between $130 million and $210 million (end of year) without any definite trend, and at the end of 1959 reserves were more than three times as large as the largest fall in reserves from the end of one year to another. Irish reserves were appreciably lower in 1958 than in 1950, owing to sharp declines in 1951 and 1956. The gross reserves of Turkey were larger in 1958 than in 1950, but the net position had deteriorated greatly on account of the rise in short-term indebtedness. The reserves of Portugal, on the other hand, have risen almost without interruption to their present remarkably high level. In both Spain and Yugoslavia, disclosed official gross reserves have been small throughout the period. Between 1950 and 1958, the net short-term position deteriorated drastically in Spain, while in Yugoslavia the trend was rising, in so far as net indebtedness under payments agreements declined by nearly $100 million.

Official gold and gross foreign exchange holdings in relation to imports in 1958

	Millions of dollars, end of period		*Number of months of imports at annual 1958 rate covered by reserves outstanding at end of 1958*
	1950	*1958*	
Greece	187	176	4
Ireland [a]	392	300	6
Portugal	471	708	18
Spain [b]	61	57	1
Yugoslavia	18	50	1
Turkey	214	297	11

Source: IMF, *International Financial Statistics.*

[a] Owing to the close economic and banking relations between Ireland and the United Kingdom, foreign exchange statistics do not have the same importance as in many other countries.

[b] Gold holdings of the Bank of Spain only.

At present, Portugal is the only country of the group whose international liquidity position is strong enough to invite the running-down of reserves for the finance of domestic expansion, whereas in Spain and Turkey a strengthening of reserves is an urgent need.[5] In the future, therefore, nearly all these countries will be able to run a current balance-of-payments deficit only to the extent that they can finance this by new borrowing or from foreign aid and private donations.[6]

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[2] Since separate data on the trade and payments of southern Italy with northern Italy and the rest of the world are not available, southern Italy is generally excluded from the discussion in this section.

[3] **Exports as a percentage of imports** [a]

Country or area	*1913*	*1928*	*1937-1938*	*1957-1958*
Western Europe: total	82	78	74	88
Southern Europe [b]	68	66	77	59
Greece	68	48	65	41
Ireland	95 *	76	55	68
Portugal	40	36	50	59
Spain	81	71	66 [c]	56
Turkey	57 *	77	107	86
Yugoslavia	80 *	82	111	62

Sources: See Tables 2 and 4.

[a] Based on current values in dollars; exports f.o.b. and imports c.i.f.

[b] Excluding southern Italy.

[c] 1935.

[4] From 1950 to 1958, net official grants amounted to $2.4 billion for the six countries as a whole, and other net long-term capital amounted to $0.6 billion. Yugoslavia, Greece and Turkey were the main beneficiaries of such assistance. (See Appendix Table XXV.)

[5] In August 1959, Turkey was extended credits totalling $359 million. Of this total, $100 million was granted by various member countries of OEEC, $25 million by the IMF, and $234 million by the United States Government (of which $75 million was from the Development Loan Fund and Export-Import Bank and $44 million constituted the postponement of debt repayment). Furthermore, an agreement in May 1959 between Turkey and its various creditors consolidated Turkey's existing commercial debts, amounting to about $400 million, and arranged for repayment to be spread over 12 years.

In July 1959, Spain was accorded financial assistance amounting to $418 million, of which $100 million by the OEEC, $130 million by the United States Government (including $60 million of surplus sales under Public Law 480), $75 million by the IMF, $68 million by United States commercial banks and $45 million of debt consolidation.

[6] Private donations have been an important source of income in all countries except Turkey and Yugoslavia; and in recent years have risen in value in Greece, Portugal and Yugoslavia (see Appendix Table XXV). Since such donations consist for the most part of emigrants' remittances, they may be regarded as current (and continuing) additions to resources, although they are formally a capital item in the balance of payments. For this reason the table below does not relate the import surplus,

TABLE 1

Main elements in the balance of payments of southern Europe [a] and Ireland

Annual averages in millions of dollars at current exchange rates

Item	1952-1953 [b]	1954-1956	1957-1958
Goods account			
Exports	1 720	1 829	2 125
Imports [c]	2 457	2 741	3 217
Balance	−737	−912	−1 092
Invisible account (net) [d]			
Total	164	277	348
of which : Foreign travel	154	165	158
Balance on goods and services account	−573	−635	−744
Donations (net)			
Official	268	226	156
Private	131	196	278
Long-term capital (net)			
Official	73	74	21
Private [e]	19	20	28
Short-term capital and monetary gold [e]	50	135	301
Balancing item	32	−16	−40

Sources : IMF, *Balance-of-Payments Yearbook*, and national statistics.

NOTE. — No allowance has been made for transactions among the six countries. Commodity trade among these countries has accounted for less than 5 per cent of their total trade in recent years. For details for constituent countries, see Appendix Table XXV.

[a] Greece, Portugal (escudo area), Spain, Turkey and Yugoslavia.

[b] For Spain, 1953 only.

[c] c.i.f. for Yugoslavia and Ireland.

[d] Including non-monetary gold.

[e] Long-term private capital for Greece and Ireland is included in short-term capital and monetary gold.

Financing the Growth of Imports

It has been suggested above that not only is the net addition to domestic resources provided by a balance-of-payments deficit important in these countries, but also the level of commodity imports, whether or not fully paid for by exports of goods and services. Most of these countries have in fact been able considerably to raise their volume of imports in the post-war period, and the share of imports in national product has risen in all except Spain and Turkey.[7]

Commodity imports as a percentage of gross national product in southern Europe and Ireland [a]

Based on current values in dollars

Country	*1938*	*1948*	*1954-1956*	*1957*
Ireland	23	39	35	33
Portugal	16	28	22	25
Greece	17	10	18	19
Yugoslavia	..	..	8	9
Spain	16 [b]	10	7	10
Turkey	8	10	6	4

Sources and methods : See Appendix B.

[a] In countries with multiple exchange rates, customs declarations for imports and exports are made in terms of foreign currency which, in computing trade statistics, are converted into national currency at a single rate. Because these statistics do not, therefore, measure the amount of national currency actually bought or sold by exporters or importers, the post-war percentages shown above for Spain, Turkey and Yugoslavia tend to be smaller than if the ratio of imports to gross national product were calculated on the basis of import outlays in national currencies.

[b] 1935.

For the six countries as a group, 67 per cent of all commodity imports during 1952-1958 were covered by commodity exports, a further 7 per cent by private donations, and 9 per cent by a favourable balance on invisible account.

All countries, except Turkey, have had an improving balance of current invisible transactions, and receipts from tourism have contributed to this improvement. Net shipping income has been an important item in the Greek balance of payments, but a large part of the possible gains from this source has been lost because of the difficulty of ensuring repatriation of shipowners' earnings and (a related problem) because about one-half to two-thirds of the merchant fleet owned by Greek nationals sails under other flags.[8] In Spain, although there is a merchant fleet of 1.5 million GRT, the balance of international transport payments is negative. This is partly due to the fact that a large part of the fleet is used for coastal traffic, supplementing the road and rail network.

Net receipts from tourism in Greece have risen since before the war from 4 per cent to 10 per cent of commodity export receipts, and in Ireland from 10 per cent to over 15 per cent. In Yugoslavia, such receipts have also expanded, but still amount to only about 2 per cent of revenue from commodity exports, and in Turkey the tourist account has been a negative item in

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as formally defined, to the national product, but the import surplus less private donations.

Deficit on account of goods and services and private donations as percentage of gross national product

	1952-1953	*1954-1956*	*1957-1958*
Greece	5.3	3.6	3.3
Ireland	3.3	4.5	−0.1
Portugal	−0.4	−0.7	0.3
Spain	..	1.9	..
Turkey	2.9	1.4	0.6
Yugoslavia	4.1	2.0	2.0

[7] In the post-war period the share has fluctuated around a higher level than pre-war. The sharp fall in Turkey in 1957 was caused by the imposition of severe quantitative import restrictions following inflation and balance-of-payments difficulties.

[8] However, in the last two years there has been an important inflow of shipping funds and a tendency for Greek owners to revert to the national flag (see Chapter VII, section 3). Tax proposals at present before Parliament are intended to encourage this tendency.

the balance of payments.[9] The prospect of a continuous increase in tourist travel in southern Europe, as the travel habit spreads with rising incomes in industrial countries, is one of the more favourable auguries on the export side of the balance of payments, and has encouraged investment in the tourist industry.[10]

Emigrants' remittances are an even more important item than either shipping or tourism in the Greek balance of payments; they added between 3 and 4 per cent to the national income in 1956 and 1957, and equalled 15 per cent of commodity imports. These remittances are also important in Ireland and to a lesser extent in most other countries of the group.

An additional source of foreign exchange in Portugal has been the contribution of the overseas provinces (which have a favourable export balance with the rest of the world) — ranging from $40 million to $100 million between 1950 and 1958.[11] In some of these countries, current military expenditure by foreign governments under mutual defence arrangements has also been an important source of foreign exchange (amounting to an annual inflow of $10-15 million in Greece, $40-60 million in Turkey, and recently to $70 million in Spain).

The various receipts mentioned above have enabled the countries concerned to finance a deficit in commodity trade that has everywhere been substantial, as is apparent from a comparison of the following figures with those for imports on p. 3.

Commodity exports as a percentage of gross national product in southern Europe and Ireland [a]

Based on current values in dollars

	1938	*1948*	*1954-1956*	*1957*
Ireland	14	14	21	23
Portugal	8	12	15	14
Greece	12	3	8	8
Yugoslavia	..	..	5	5
Spain	11 [b c]	8 [b]	5 [b]	5 [b]
Turkey	7	6	4	3

Sources and methods : See Appendix B.

NOTE. — The statistical problems involved in measuring exports when there are multiple exchange rates are the same as those for measuring imports; therefore note [a] to the text table on p. 3 is also applicable, *mutatis mutandis*, here. A calculation based on the relative movements of the volume of exports and gross national product suggests, however, that whereas the trend is less marked than shown above, it is in the same direction.

[a] In descending order of commodity exports as a percentage of gross national product in the post-war period.

[b] Percentage of national income.

[c] 1935.

The Growth and Structural Change of Imports

Except in Portugal and, to some extent, Ireland (both countries in which domestic expenditure and output have grown only slowly) and in Greece since the 1953 devaluation, the post-war growth of imports has been restrained by the extensive use of quantitative restrictions, but has nevertheless been rapid (see Table 2). At the same time, the structure of imports has changed since before the war (see Table 3). The share of capital goods has risen in Greece, Turkey, Ireland and Yugoslavia, and probably — though less certainly — in Spain and Portugal. Imports of raw materials and fuels have also represented an increasing proportion of the total, except in Yugoslavia (where domestic supplies have been rapidly developed) and Spain. Recent increases in agricultural output have yielded greater domestic supplies of some important foodstuffs (such as wheat in all countries, sugar in Turkey, and sugar, meat and processed foods in Yugoslavia), so that the share of food products in total imports declined from nearly one-third in pre-war years to only one-fifth in 1957-1958.[12] The declining share of consumers' manufactured goods in Greek, Turkish and Yugoslav imports reflects in part the substitution of domestic products, as industries producing such goods as textiles, pharmaceuticals and light electrical products are gradually established or expanded,[13] and in part deliberate economies in the

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[9] This is partly a statistical illusion, due to the difficulties of estimating true receipts from tourism when unofficial exchange rates are more favourable than official ones and a large part of total transactions made by foreign tourists therefore escape exchange control. This is true, *a fortiori*, of Spain, traditionally a tourist country, where the official payments statistics show a sharp fall in tourist receipts in 1957 and approximate stability in preceding years, although the number of tourists visiting the country rose year by year (to two-and-a-half times the 1953 level by 1958). Estimates for Ireland are also subject to a large margin of error.

[10] This is indeed one of the few instances of intraregional co-operation in investment. A major tourist road linking Italy, Greece, Yugoslavia and Turkey is to be completed by 1963, the general planning of which has been undertaken under the auspices of the Inland Transport Committee of ECE.

On the national level, emphasis has been changing in Greece from public investment in the improvement of communications to enlarging accommodation facilities (especially for the higher income groups). In Turkey a new semi-official body (the Tourism Bank) has been established to finance mainly private investment in tourist accommodation, expenditure on which enjoys special tax relief. Yugoslavia has concentrated on improving roads and developing resorts on the Adriatic coast. In Ireland public grants and guaranteed loans and tax allowances have been granted for some income-earning local projects such as hotels, but a ten-year programme was initiated in 1959 for direct public financial assistance to non-commercial projects forming part of an integrated development of a tourist region, and designed to cover such activities as basic site development and the provision of parks, promenades, etc. For further information on these and other countries, see *Tourism in Europe*, OEEC, Paris 1959.

[11] Portugal's current surplus on merchandise account with its overseas provinces has been less than one-fourth of the surplus of these provinces with the non-escudo area.

[12] Until 1954, there was growing dependence on imports in Yugoslavia on account of the stagnation of agricultural output, but with the subsequent sharp rise in output (see Chapter VII), the trend has been reversed. Foodstuffs are not expected to exceed 5 per cent of all imports in 1960.

[13] There was also a considerable degree of import substitution of intermediate products such as cement, steel and fertilizers (see Chapter VII, Table 17).

TABLE 2

Imports into southern Europe and Ireland, 1913 to 1957-1958

Shares in world imports and changes in value, volume and prices

Percentages

Imports into	1913	1928	1937-1938	1948	1954-1956	1957-1958	1937-1938 to 1957-1958	1948 to 1957-1958	1938 to 1957-1958	1948 to 1957-1958	1938 to 1957-1958	1948 to 1957-1958	1938 to 1957-1958	1948 to 1957-1958
	Current value								Volume		Unit value		Import capacity[a]	
	Value or percentage of world imports						*Percentage change*							
World[b]	*18.90*	*32.20*	*24.80*	*58.50*	*88.10*	*102.90*	315	76	77	..	149	..	—	—
Total western Europe	61.98	54.53	54.70	44.09	45.18	45.39	265	81	57	96	131	−6	99	156
Southern Europe and Ireland[c]	3.57	4.36	3.86	4.11	3.25	3.36	261	44	..	..	..	..	..	..
Greece	0.18	0.50	0.55	0.62	0.45	0.53	303	50	103	..	103	..	24	..
Ireland	0.90 *	0.91	0.85	0.94	0.60	0.52	155	−3	33	4	99	−6	55	96
Portugal	0.44	0.37	0.42	0.71	0.45	0.48	371	18	68[d]	—[d]	133[d]	−5[d]	138[d]	70[d]
Spain[e]	1.34	1.80	1.15[f]	0.83	0.76	0.83	199	77	36[f]	96	96[f]	−17	7[f]	33
Turkey	0.60 *	0.35	0.42	0.47	0.52	0.35	240	29	127[g]	106[g]	81[g]	−14[g]	57[g]	92[g]
Yugoslavia	0.11 *	0.43	0.47	0.54	0.47	0.65	473	113	78	99	230	8	9	28

Sources : See Appendix B.

[a] Volume index of exports adjusted for change in terms of trade.

[b] Figures in italics are current values in billions of dollars c.i.f. They exclude the intra-trade of mainland China, eastern Europe and the Soviet Union, but include their trade with other countries. Imports from the United States of special category commodities are also excluded.

[c] Excluding Italy.

[d] 1938 and 1948 to 1954-1956.

[e] Data for years prior to 1948 refer to the trade of the mainland and the Balearic Islands; thereafter they also include the trade of the Canary Islands, Ceuta and Melilla. Data on volume, unit value and import capacity refer throughout to the mainland and the Balearic Islands only.

[f] 1935, or percentage change from 1935 to 1957-1958.

[g] 1938 and 1948 to 1954-1955.

use of scarce foreign exchange for " less essential " imports.

The rising share of capital goods, metals, fuel and raw materials (which now constitute between 50 per cent and 70 per cent of total imports, except in Ireland) is a consequence of the considerably faster growth in these countries of demand for investment goods, energy, and raw materials than the growth of domestic supplies; and demand for such imports is likely to rise fast for some years to come. At the same time, domestic capital formation and demand for imported capital equipment in relation to gross national product may be expected to rise in all the countries of the group, except Yugoslavia. From the incomplete evidence available, it would appear that the average import content of gross fixed capital formation is in most of the countries definitely higher than that of other elements of final demand.[14] Yugoslavia, where much of the required capital equipment is now domestically produced, is however an exception, as is Ireland, where the import content of consumption is high as a result of the combination of relatively high personal incomes and a narrow production structure.

The shift away from construction, and towards machinery, equipment and vehicles is likely to raise the direct import content of investment. Similarly, demand for fuel and raw materials will increase as industry develops and import demand may therefore be expected to rise faster than national product because of the limited endowment of natural resources in some of these countries.[15] At the same time, demand for consumers' manufactured goods, for which the income elasticity of demand is usually greater than unity, may also be expected to rise faster than aggregate consumers' incomes. The effect of internal demand on the pattern of consumer-goods imports is a function not only of the structure of domestic industry, but also of the distribution of disposable personal incomes, which in most countries counteracts to some extent the effect of low average incomes on demand for less essential goods. Indeed, in Greece and Portugal, there is concern about the rising volume of imports of less essential durable consumers' goods, such as motor-cars.

To maintain a level of investment in the less developed countries which will enable them progressively to narrow the gap between their living standards and those of the richer countries will certainly require

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[14] The difference is in part due to the large share of food in private consumption. The difference between the marginal import contents of fixed capital formation and other elements of demand is probably smaller.

[15] See Chapter VII, section 3, for energy supplies.

TABLE 3

Commodity composition of imports into southern Europe and Ireland

Percentages of total imports, based on current values, c.i.f.

Country and period		Food products				Other agricultural products, mineral products and metals				Manufactured goods		
		Food	Drink and tobacco	Animal and vegetable oils and fats	Total	Agricultural raw materials	Fuel and lubricants	Other	Total	Consumer goods	Capital goods [a]	Total
Greece	1928	36	—	1	37	8	— 11 —		19	36	8	44
	1938	29	—	—	29	8	9	10	27	30	14	44
	1954-1956	19	—	1	20	12	13	7	32	31	17	48
	1957-1958	17	—	1	18	10	12	8	30	29	23	52
Ireland	1928	32	2	1	35	4	— 6 —		10	50	5	55
	1938	25	4	1	30	7	11	5	23	38	9	47
	1954-1956	16	3	1	20	10	14	2	26	42	12	54
	1957-1958	16	3	1	20	6	14	—	20	48	12	60
Portugal	1929	— 27 —		1	28	..	— .. —		33	..	..	39
	1938	18	1	—	20	17	— 21 —		38	..	..	42
	1954-1956	12	1	1	14	16	12	14	42	20	24	44
	1957-1958	9	1	1	11	16	13	15	44	21	24	45
Spain	1928	— 28 —		—	28	..	— .. —		39	..	..	33
	1934	— 20 —		1	21	..	— .. —		47	..	..	32
	1954-1956	10	2	4	16	13	18	11	42	21	21	42
	1957	9	2	6	17	12	15	18	45	19	19	38
Turkey	1928	— 17 —		3	20	..	— .. —		16	54	10	64
	1938	— 5 —		—	5	..	— .. —		25	43	27	70
	1954-1956	6	—	—	6	8	9	8	25	32	37	69
	1957	13	—	2	15	7	13	7	27	28	30	58
Yugoslavia	1928	— 12 —		2	14	..	— .. —		30	35	21	56
	1938	— 5 —		1	6	..	— .. —		38	36	20	56
	1954-1956	28	—	1	29	16	9	6	31	16	24	40
	1957-1958	21	—	2	23	12	10	7	29	20	28	48

Sources: UN, *Yearbook of International Trade Statistics*; OEEC *Statistical Bulletins — Foreign Trade*, Series IV; and national statistics.

[a] Machinery and transport equipment, other than passenger cars (SITC Section 7, less 732.01); and building materials (part of SITC Sections 2 and 6).

the financing of a continuing balance-of-payments deficit on current account for some years to come; and this is now generally recognized, at least in principle.[16] However, the flow of long-term private capital into these economies has so far been small, and has made only a very limited contribution to their industrialization, although greater amounts, in the form of loans and grants, have been made available by international institutions. Whether the future flow will be commensurate with that needed to give these countries a reasonable chance of gradually catching up with the rest of western Europe is uncertain, and the general problem for internal policy of making the best use of whatever resources are available in future is discussed in section 2. However, as has been suggested above, one means by which they can help themselves is by ensuring that import scarcity itself — as distinct from the absence of resources provided by an import surplus, about which they can do little — does not unduly hamper their development.

(b) The likely growth of exports

The question thus arises whether exports can be expected, without special efforts at export promotion, to keep pace with a rise in imports exceeding the

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[16] See the record of the Secretary-General's statement at the close of the debate on the world economic situation, Economic and Social Council, 1073rd meeting, 8 July 1959 in *Official Records of the Economic and Social Council, Twenty-eighth Session*: " All had come to accept the notion that equilibrium in the balance of payments of an industrial country, which was won at the cost of unemployment, was a sham equilibrium. He believed the time had come to recognize equally that any equilibrium in the balance of payments of under-developed countries which would doom them to widening rather than narrowing the gap between their per caput incomes and those of the developed countries would also be a hollow balance."

TABLE 4

Exports of southern Europe and Ireland, 1913 to 1957-1958

Shares in world exports and changes in value, volume and prices
Percentages

Exports from	1913	1928	1937-1938	1948	1954-1956	1957-1958	1937-1938 to 1957-1958	1948 to 1957-1958	1938 to 1957-1958	1948 to 1957-1958	1938 to 1957-1958	1948 to 1957-1958	1938 to 1957-1958	1948 to 1957-1958
	Current value								Volume		Unit value		Terms of trade [a]	
	Value or percentage of world exports						*Percentage change*							
World [b]	*17.40*	*30.10*	*22.00*	*53.00*	*81.30*	*94.40*	329	78	85	85	154	98	..	..
Total western Europe	59.94	45.55	45.50	33.58	42.15	43.64	341	131	112	159	115	−7	−7	−1
Southern Europe and Ireland [c]	2.90	3.17	3.13	2.52	2.22	2.21	203	56	..	..	..	..	..	..
Greece	0.13	0.26	0.40	0.18	0.22	0.24	157	140	28	..	96	..	−4	..
Ireland	0.93 *	0.74	0.53	0.37	0.38	0.39	217	85	56	109	98	−12	—	−6
Portugal	0.19	0.14	0.24	0.33	0.34	0.31	449	67	82 [d]	67 [d]	206 [d]	−3 [d]	31 [d]	2 [d]
Spain [e]	1.19	1.36	0.86 [f]	0.70	0.55	0.51	153	29	17 [f]	61	80 [f]	−31	−8 [f]	−17
Turkey	0.37 *	0.29	0.51	0.37	0.39	0.32	172	55	41 [g]	51 [g]	103 [g]	10 [g]	12 [g]	28 [g]
Yugoslavia	0.09 *	0.38	0.59	0.57	0.34	0.44	221	38	14	54	216	−11	−4	−17

Sources : See Appendix B.

[a] The ratio of the export price index to the import price index.

[b] Figures in italics are current values in billions of dollars f.o.b. They exclude the intra-trade of mainland China, eastern Europe and the Soviet Union, but include their trade with other countries. Special category exports from the United States are also excluded.

[c] Excluding Italy.

[d] 1938 and 1948 to 1954-1956.

[e] Data for years prior to 1948 refer to the trade of the mainland and the Balearic Islands; thereafter they also include the trade of the Canary Islands, Ceuta and Melilla. Data on volume, unit value and terms of trade refer throughout to the mainland and the Balearic Islands only.

[f] 1935, or percentage change from 1935 to 1957-1958.

[g] 1938 and 1948 to 1954-1955.

growth of national product — which itself would need to rise by about 7 per cent a year if the countries of southern Europe are to reach within twenty years the present per capita income level of the industrial countries of western Europe. The fact that exports have risen more slowly than imports since pre-war years, is irrelevant in this context. Since a balance-of-payments deficit could be financed during the post-war years by all these countries, it was reasonable to expand imports beyond the level that could be covered by export earnings, provided that the surplus was devoted essentially to raising productive investment — which has not always been the case.

More relevant, and more disturbing, is the fact that these countries have not participated fully in the general expansion of world exports.[17] During twenty years their combined share in world exports has fallen—from 3.1 per cent in 1937-1938 to 2.2 per cent in 1957-1958. Since the immediate pre-war years (but mainly in the post-war period), the quantum of world trade has expanded by 85 per cent, while that of the countries under review increased by less than one-third. Only in Portugal, which expanded exports to its overseas provinces, was the post-war share in world trade higher than the pre-war share. At the other extreme, the current value of Spanish exports in 1957-1958 was only slightly above the 1928 level, in contrast with a three-fold rise in world exports. (See Table 4.)

To appreciate the factors underlying the relatively poor export performance of most of these countries it is necessary to examine the direction and commodity composition of their trade. Most of it is with the industrial countries, which take three-fourths or

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[17] The share of exports in gross national product and its movement over the years in southern European countries contrasts sharply with the experience of the smaller western European countries in the course of their economic development in the last quarter of the nineteenth century. For example, in Denmark and Sweden the share was as high as 20 to 30 per cent, and during the fairly continuous rise in the volume of world trade until the first world war of some 3.5 per cent a year, exports from these countries rose at about the same rate (see A. J. Youngson, *Possibilities of Economic Progress*, Cambridge 1959, pp. 187 and 227; and C. P. Kindleberger, *The Terms of Trade*, New York 1956, p. 301). Consequently, their exports, in relation both to their national product and to the value of world trade, either expanded or remained fairly constant. In most southern European countries, on the other hand, exports are a comparatively small and falling proportion of national product and their share in world trade has been declining. Moreover, in the northern European countries export proceeds were two to three times higher than expenditure on domestic investment, so that foreign exchange for imports of capital goods was more easily available. In several southern European countries, however, these crucial relationships are entirely different, with exports constituting only one-half or one-third of the gross capital formation.

TABLE 5

The geographical distribution of exports from southern Europe [a] and Ireland

Country of origin and period		Total exports: Millions of current dollars f.o.b.[b] (1)	Percentage distribution by destination: Industrial countries: EEC countries (2)	EFTA countries (excluding Portugal) (3)	North America (4)	Total (2+3+4) plus Japan (5)	Eastern Europe and the Soviet Union (6)	Southern Europe [a] (7)	Other primary producing countries [c] (8)
Greece	1928	78	57	17	17	91	3	1	5
	1937-1938	88	48	11	17	78	11	3	8
	1954-1956	175	50	17	12	81	8	3	8
	1957-1958	226	43	14	14	74	14	5	7
Ireland	1928	222	1	96	1	98	1	—	1
	1937-1938	116	5	92	1	98	—	—	2
	1954-1956	311	6	86	3	95	—	1	4
	1957-1958	367	6	78	5	89	—	1	10
Portugal	1928	43	40	36	7	72	—	2	26
	1937-1938	52	32	26	7	67	2	5	26
	1954-1956	279	22	21	11	55	2	2	41
	1957-1958	288	23	19	9	52	2	2	44
Spain [d]	1928	409	49	20	11	81	—	1	18
	1935	190	38	28	11	78	1	3	18
	1954-1956	451	29	26	13	73	—	2	25
	1957-1958	481	29	27	11	71	1	1	27
Turkey	1928	88	47	11	17	75	9	7	9
	1937-1938	112	56	8	13	81	12	2	5
	1954-1956	318	32	14	18	67	19	6	8
	1957-1958	305	32	14	24	72	21	2	5
Yugoslavia	1928	113	43	23	1	69	21	8	2
	1937-1938	130	52	20	5	78	14	3	5
	1954-1956	273	36	19	10	66	14	8	12
	1957-1958	418	30	17	8	56	27	4	13

Sources: *The Network of World Trade*, League of Nations, Geneva 1942; and *Direction of International Trade*, United Nations, New York.

[a] Excluding Italy.

[b] Annual rates.

[c] Including exports not allocated by country.

[d] Prior to 1954, data refer to the trade of the mainland and the Balearic Islands; thereafter they include also the Canary Islands, Ceuta and Melilla.

more of the exports of Greece, Spain, Turkey and Ireland (see Table 5). For Portugal the proportion is only about one-half, because of its trade with its overseas provinces, as it is also for Yugoslavia, which now conducts an important share of its trade with eastern Europe and the Soviet Union and a rising share with overseas primary-producing countries. Trade among the countries of the group is marginal and in most cases has been stagnating or declining since 1928.

The slow rise in exports from this group of countries cannot be attributed to the movement of total imports into their major industrial trading partners, since these have in fact expanded substantially, yet the group has lost ground in these markets as in world trade generally:

Combined imports of OEEC countries, the United States and Canada from five southern European countries and Ireland and from other sources [a]

	From primary-exporting countries [b]: *Total*	*of which: Southern Europe and Ireland*	*From World* [c]: *Total*	*of which: Southern Europe and Ireland*
	Billion dollars	Percentage of total	Billion dollars	Percentage of total
1928	7.7	10.7	21.9	3.7
1937-1938	6.7	8.2	16.2	3.4
1957-1958	23.0	7.1	62.9	2.6

Sources: UN, *Direction of International Trade*; OEEC, *Statistical Bulletins—Foreign Trade*, Series I; and League of Nations, *Network of World Trade*, Geneva 1942.

[a] Imports are measured c.i.f. for OEEC countries and f.o.b. for the United States and Canada, in current prices. The southern European countries included are Greece, Portugal, Spain, Turkey and Yugoslavia.

[b] World *less* mainland China, Canada, the United States and Japan and *less* European countries other than the five southern European ones and Ireland.

[c] Excluding the Soviet Union, eastern Europe and mainland China.

TABLE 6

Commodity composition of exports of southern Europe and Ireland

Percentage of total exports, based on current values, f.o.b.

Country and period	Agricultural products					Mineral products and metals	Manufactured goods		
	Food	Drink and tobacco	Animal and vegetable oils and fats	Agricultural raw materials	Total		Consumer goods	Capital goods [a]	Total
Greece 1928	24	62	3	6	95	3	2	—	2
1938	24	54	6	5	89	6	5	—	5
1954-1956	23	41	4	16	84	8	6	2	8
1957-1958	24	45	3	14	86	8	5	1	6
Ireland 1928	79	10	—	4	93	—	6	1	7
1938	77	10	—	4	91	—	9	—	9
1954-1956	64	6	—	6	76	2	21	1	22
1957-1958	63	6	—	5	74	1	24	1	25
Portugal 1929	30	28	1	19	78	8	. .	. .	14
1938	25	20	7	14	66	7	25	2	27
1954-1956	20	8	3	15	46	11	39	4	43
1957-1958	19	10	3	12	44	9	43	4	47
Spain 1928	33	17	10	6	66	13	20	1	21
1934	53	8	4	11	76	11	. .	. .	13
1954-1956	42	6	5	3	56	28	13	3	16
1957	41	7	4	2	54	28	14	4	18
Turkey 1928	34	31	—	22	87	3	10	—	10
1938	46	27	—	18	91	6	3	—	3
1954-1956	38	28	—	21	87	12	1	—	1
1957	27	40	—	20	87	12	1	—	1
Yugoslavia 1928	43	2	—	30	75	11	. .	. .	14
1938	46	3	—	24	73	19	. .	. .	8
1954-1956	28	6	—	23	57	19	21	3	24
1957-1958	29	6	—	16	51	18	22	9	31

Sources: UN *Yearbook of International Trade Statistics*; OEEC *Statistical Bulletins, Foreign Trade,* Series IV; and national statistics.

[a] See Table 3 for definition.

Nevertheless, Yugoslavia and to a lesser extent Greece appear to have benefited in recent years from a further diversification of the geographical pattern of their trade, and have experienced a greater expansion of total exports than have other countries of the group.

In pre-war years Yugoslavia always had close trade relations with eastern European countries other than the Soviet Union, and the resumption of trade with this area and with the Soviet Union after 1954 brought the share significantly beyond pre-war levels. Larger exports (mainly tobacco and bauxite) to eastern Europe and the Soviet Union were also responsible for one-third of the expansion of Greek export proceeds since 1954. Ireland's trading position is rather different from that of the southern European countries in that a large share of its total exports (about 80 per cent) goes to one country alone — the United Kingdom (see also Chapter VII, section 3), but exports to other markets have accounted for 30 per cent of the growth in the total export volume in the last 20 years.

The main explanation of the relatively poor export performance of these countries must obviously be sought in the commodity structure of their trade. In all of them, agricultural products account for a high proportion of the total export value — in Greece and Turkey for between 80 and 90 per cent, in Ireland for between 70 and 80 per cent, in Spain for 50 to 60 per cent, in Portugal and Yugoslavia for 40 to 50 per cent (see Table 6). Over the past three decades, the share of agricultural products in total exports has fallen appreciably only in Portugal, Ireland and Yugoslavia. The share of mineral products and metals, although not very large except in Spain and Yugoslavia, has been rising, as has the share of manufactured goods in Portugal, Yugoslavia and Ireland, particularly in

TABLE 7

Exports of wine, tobacco and selected foods from southern Europe [a]

Annual averages and index numbers

Commodity	1909-1913	1924-1928	1934-1938	1950-1952	1953-1955	1956-1957
	Millions of litres					
Wine, common	581	635	253	232	333	485
Wine, fine	93	121	106	95	88	101
	Thousands of tons					
Raisins and currants	184	150	174	132	155	169
Table grapes	82	83	84	74	122	199
Citrus fruit	912	1085	1081	979	1352	931
Other fresh fruit	188	245	264	360	667	908
Other dried fruit	..	102	78	51	70	62
Nuts	122	133	142	145	121	104
Potatoes	141	270	185	134	256	293
Other vegetables	424	556	434	554	674	734
Olive oil	102	125	91	62	53	58
Sardines	57	51	58	29	55	45
Tobacco, raw	39	87	83	107	137	164
Volume [b] of exports of commodities listed above:	*Index numbers, 1924-1928=100*					
Greece	53	100	95	66	97	111
Italy	87	100	95	117	129	169
Portugal	86	100	100	80	117	117
Spain	83	100	68	56	79	64
Turkey	113	100	117	145	162	181
Yugoslavia	..	100	109	100	118	245
Total : including Italy	..	100	88	86	108	120
excluding Italy	..	100	86	75	100	103

Sources : National statistics; and Appendix Table XXIV.

NOTE. — In some cases, the averages of years refer to periods slightly different from those shown (Greece: 1910-1913; Portugal—for fresh fruit and nuts—average of 1934, 1935, 1937 and 1939; Spain: 1910-1913, 1934-1937 and 1950-1951; Turkey: March 1911-March 1914). The data for 1909-1913 are not strictly comparable with later figures owing to territorial changes (e.g. the territory of Greece doubled as a result of the incorporation of areas previously belonging to Turkey). However, the 1909-1913 exports of citrus fruit and dates which originated in areas later ceded to non-European countries have been excluded.

[a] Including Italy.

[b] Derived from typical unit values for the period 1924-1928.

recent years.[18] In Portugal, Ireland and especially Yugoslavia, where the commodity structure of exports has undergone some change, the total volume of exports has risen more since pre-war than in countries where the structure changed but little (Greece, Turkey and Spain).[19]

Changes in the volume of exports from southern Europe of some of the major agricultural commodities — food, wine and tobacco — during the last half century are shown in Table 7.[20] In recent years these commodities have accounted for 55-65 per cent of total exports from Greece and Turkey, nearly one-third of Spanish exports, but only one-seventh of exports from Portugal and Yugoslavia. By and large there has been little upward trend for most of these commodities ever since 1913, though important exceptions are fresh fruit (other than citrus) and fresh vegetables from southern Italy, and tobacco from Greece and Turkey. Although the total volume of world trade has nearly doubled since the twenties, exports from southern Europe of the commodities shown in the table have expanded by only 20 per cent, and if Italy is excluded there has been virtually no rise.

If Greek exports of cotton — which were practically non-existent before the war and accounted for almost 9 per cent of total Greek exports in 1957-1958 — are excluded, the present volume of other Greek exports is no more than one-fifth higher than in the immediate pre-war years. In Ireland — heavily dependent on exports of cattle and cattle products — the total volume of exports has doubled in the last ten years, but is still no higher than in the pre-depression period of the twenties.

The sluggishness of exports of agricultural products from these countries is associated with a fundamental shift that has taken place in the import demand of the industrial countries.[21] Up to the first world war agricultural products accounted for over 90 per cent of industrial countries' imports from primary producers. In recent decades, however, new commodities, such as petroleum and mineral products, have taken an increasing share and now account for nearly two-fifths of the total. Moreover, the expansion of world trade in recent decades has been much greater for manufactured goods than for primary products,[22] reflecting not only high levels of investment and greater elasticity of consumers' demand for manufactures than for foodstuffs, but also the effects of the

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[18] Separate data on exports from southern Italy are not compiled, but data are available for the trade of Sicily with foreign countries (i.e. excluding trade with the Italian mainland). In 1958 the percentage distribution of exports of the main commodity groups was as follows: agricultural products, 62 per cent; petroleum products, 23 per cent; other commodities, 15 per cent (see Banco di Sicilia, *Notiziario Economico Finanziario Siciliano, 1958*, Palermo 1959, p. 249). After Campania, Sicily is generally considered as industrially the most developed of the southern Italian regions.

[19] In Yugoslavia the recent change in export structure was made possible by the diversification of industrial output.

[20] See also Appendix Table XXIV for country details.

[21] For a detailed analysis, see the *Economic Survey of Europe in 1957*, Chapter IV, section 3.

[22] **Annual percentage rates of growth of world [a] industrial production and exports of manufactured goods and raw materials since 1878**

	1878-1958	*1878-1913*	*1913-1937*	*1937-1958*	*1948-1958*
World manufacturing output	3.6	4.0	2.6	4.1	4.8
Quantum of world exports	2.3	3.4	0.2	2.9	6.3
of which :					
Manufactured goods	2.4	3.3	−0.3	4.2	7.4
Primary products	2.2	3.4	0.7	2.0	5.3

Sources and methods : See Appendix B.

[a] Data exclude eastern Europe, the Soviet Union and mainland China.

industrialized countries' drive towards self-sufficiency in agricultural products during the great depression and the war, and the rapid development of man-made substitutes for a number of agricultural raw materials. Even on the assumption of a doubling of income in the developed countries by 1975, the volume of their imports of agricultural products would hardly rise by more than 30-40 per cent (or an annual rate of 1½-2 per cent), though for some items, such as fresh fruit and vegetables and some processed foods, the outlook might be more favourable.[23]

But when taking comfort from this last possibility, it has to be borne in mind that southern Europe has to face vigorous competition even in the markets for such products, partly from domestic producers in the industrialized countries and partly from competing exporters in North Africa and elsewhere (see also Chapter VII, section 3).

(c) The problem of long-term external balance

The foregoing discussion has suggested, first, that there is no reason to expect the "import content" of economic growth in the countries under discussion to fall in the near future and, secondly that world demand for the exports on which these countries still mainly depend cannot be expected to grow as fast as total world demand for exports. In every country except Portugal some 70 per cent of total commodity exports are food and agricultural raw materials, the demand for which, as was pointed out above, seems unlikely to grow by more than 1½-2 per cent a year (slightly faster than population), whereas demand for some 70-80 per cent of all commodities imported into these countries is highly dynamic. There would thus seem to be a danger of increasingly acute balance-of-payments problems facing these countries in future unless vigorous efforts are made either to accelerate the growth of exports or to reduce import dependence. Even if internal balance is achieved and maintained, potential pressures on the external account will obviously be greater, the higher the rate of growth aimed at and the more it exceeds rates of expansion in the industrial countries — a precondition for narrowing the gap in income levels. In other words, there will be a tendency for the problem of partial imbalance — the choice between under-employment of domestic resources and a rising external deficit — to become increasingly acute.

Two possible lines of action suggest themselves as ways of achieving economic growth in these circumstances without accentuating structural balance-of-payments disequilibrium beyond the level at which external support can reasonably be expected: (*a*) the diversification of the present industrial structure and the establishment of industries capable of earning export revenue, and in general the exploitation of all possibilities of increasing exports; (*b*) the control of imports by one means or another so as to ensure that limited foreign exchange resources are used to maximum advantage, and the creation of domestic industries aimed specifically at producing substitutes for those imports which involve heavy foreign exchange expenditure and for which demand is likely to increase particularly fast as development proceeds. In spite of all such measures there would still be a balance-of-payments deficit which would call for foreign capital for direct investment or for loans or grants from abroad.

Export promotion. Exports of many agricultural commodities are hampered by policies of agricultural protection in industrial countries.[24] But it is likely that southern European countries (except Yugoslavia) would gain less from more liberal policies in the industrialized countries than would overseas primary exporters, for the major branches of agricultural production protected in the industrial countries are grains and animal products, in which southern European countries can scarcely compete with overseas suppliers.[25] Many typical products of southern European countries, such as olive oil, tobacco and cotton, are not cultivated at all in northern countries, so that the question of specialization within western Europe in terms of comparative cost arises for relatively few products — such as sugar-beet, some fruits and vegetables and, to some extent, wine. The varying export achievements of different southern European countries, and in particular the success of Italy, suggest that the decisive factors in the rate of growth of southern European exports of such products will be the rate of increase of income in industrial countries and the comparative export prices of individual exporting countries (including those of competing exporters outside the group) rather than the degree of overall agricultural protection in industrial countries.

Not all the countries under review have yet fully exploited their existing export potential. There is certainly still scope for promoting exports through investments in packing and processing plant, marketing, storage and transport facilities and through more extensive market research, in all of which some progress has been made in recent years.[26] In general, a promising line of development would seem to be more processing for export of produce for which demand can be enlarged in step with, or quicker than, income growth in industrial countries or for which new demands might be created (e.g. soft drinks, preserves made from Mediterranean fruit, and special textile goods). However, diversification of the industrial structure, coupled with policies designed to encourage production for export as well as — or more than — for import-saving, offer the best hope of rapid progress. In the past, exports of mineral and industrial products have often been handicapped by the lack of competitiveness arising from protective and other policies that have impeded higher productivity and efficiency and which have discouraged enterprise in seeking export markets because easy profits could be made in the protected home market (see Chapter VII, section 3). While ‘ infant industry ’ protection may often be justifiable, the danger of abuse could possibly be avoided by such measures as minimum export quotas in return for domestic subsidy or other protection.

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[23] The eastern European countries and the Soviet Union are potentially a valuable market for such southern European produce as fresh fruit and vegetables and cotton. It is, however, doubtful in view of their present long-term plans whether these countries will provide a strongly expanding market for such produce from the rest of the world in the next few years. (See Chapter III, section 5.)

[24] For a detailed discussion, see the *Economic Survey of Europe in 1958*, Chapter III, pp. 33-34, and Chapter V, pp. 28-29.

[25] On the other hand, these are products for which Irish agriculture could successfully compete on certain conditions (see Chapter VII, section 2). Yugoslavia is also now in a position to export maize and some livestock products.

It was noted above that some success has been achieved by Portugal in expanding manufactured exports, particularly to the protected markets of its overseas provinces, and by Ireland (see Table 6); and that Yugoslavia has also considerably widened its industrial exports. In these countries manufactured goods (producers’ goods as well as consumers’ goods from Yugoslavia) now account for one-fourth to one-half of the total export trade. In Spain, however, their share in total exports is lower now than in the twenties, in spite of a comparatively wide diversification of the industrial structure. With greater emphasis on efficiency and cost reduction, Spanish industry should be well placed to develop certain lines of industrial exports; this is, indeed, one of the results which the present stabilization programme, and the expected spur to industrial efficiency from greater domestic and external competition, is intended to promote.

The problem of export diversification is somewhat more difficult for Greece and Turkey, where the share of manufactured goods in exports is at present only 6 per cent and 1 per cent respectively. Both these countries produce cotton, and on the basis of their established textile industries could possibly develop specialized exports of cotton textiles to the industrially developed countries of western Europe, particularly to their prospective Common Market trading partners. But other lines of industrial export will also be necessary, if dependence on agricultural products is to be reduced. The success achieved in Yugoslavia in exporting even capital goods to other countries suggests that where the right kind of specialization is evolved, such exports can be achieved.

Substitution of imports. On the most optimistic assumption, however, it will be several years before industrial exports can appreciably contribute to total export proceeds in most of these countries; and in the meantime the establishment of new industries will swell the bill for imported capital equipment and raw materials. A private importer’s evaluation of the relative importance of scarce foreign exchange for different uses can hardly be expected to be identical with a social evaluation based on longer-term considerations of economic development. Consequently, where relatively liberal import policies have been pursued, as in Greece and Portugal, part of the available foreign exchange has been spent on less essential goods, such as motor-cars, destined to satisfy the demand of a small minority of consumers. It has been suggested that, for the Mediterranean region as a whole, the elimination of such imports could save as much as 10 per cent of the total import bill, or the equivalent of one-third of the present foreign exchange value of imports of capital goods.[27] Some steps have recently been taken in Greece in this direction [28] and in Portugal the domestic assembly of motor-cars is under consideration in view of the rising volume of such imports. In Turkey less essential imports have been sharply curtailed as a result of the import restrictions imposed in 1956. Other measures that might be considered are the heavy indirect taxation of such commodities as a means of limiting imports and removing domestic purchasing power, or alternatively, the auctioning of a limited number of import licences.

Savings that can be thus effected have a once-for-all effect, and do not remove the need for developing new industrial products and increasing agricultural supplies (if possible, for export also, as is being done in Yugoslavia) so that — during the years in which the necessary expansion of exports is being accomplished — foreign exchange can be reserved for commodities that cannot be produced at all in the country owing to natural and climatic endowments, or that cannot yet be produced at reasonable cost.

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[26] In Greece vigorous efforts to improve export marketing for some of the main Greek products (tobacco, sultanas, fresh fruit and vegetables) are being made. In November 1959 a bill was submitted to Parliament proposing the creation of a special marketing agency comprising representatives of the Government, the Agricultural Bank and private co-operatives and producers. This agency will have as a special responsibility the systematic promotion of Greek agricultural exports. Various incentives, including special export subsidies, were granted to sultana, olive oil, potato and rice exporters.

[27] FAO, *Mediterranean Development Project*, p. 34.

[28] In August 1958 a special tax (ranging from 15 to 80 per cent of the sale price or the c.i.f. import price including customs duties) was established for the imports of “ luxury ” goods such as cameras, air conditioners and race horses, and the present duties on a number of commodities such as watches and ceramics were raised to 50 per cent. Imports of cars were made subject to a “ special additional ” tax of 15,000 to 75,000 drachmas and imports of motor-cycles and scooters to one of 2,000 to 4,000 drachmas. In April 1959 advance deposits for imports of certain “ luxury ” goods were raised to 100 per cent of the invoice value of the goods, and in addition from 20 to 40 per cent of the import duty was to be paid in advance.

Estimates of the preliminary five-year programme for Greece (1959-1963) indicate that the *total* foreign exchange cost of setting up a number of new projects is only slightly higher than the *annual* savings of foreign exchange made possible once full-scale production starts; in the least favourable cases, such as nitrate fertilizer and steel, the annual saving is still nearly three-fifths of the initial cost.[29]

Import saving in the Greek five-year development programme

Million dollars

	Cost of establishing the industry		*Net annual saving in foreign exchange corresponding to domestic output* [a]	*Percentage of (iii) to (ii)*
	Total *(i)*	*Foreign exchange* *(ii)*	*(iii)*	*(iv)*
Sugar refineries . .	24	14	12	86
Fertilizer, nitrogenous	35	27	15	56
Superphosphates .	7	5	5	100
Iron alloys industry	15	9	5	56
Steel industry . . .	40	27	15	56
Soda industry . . .	5	3	2	67
Cellulose industry .	2	1.7	3	176
TOTAL . . .	128	87	57	66

Source : Preliminary Five-Year Programme for the Development of Greece, Athens, April 1959, Table XII, pp. 41, 70 and 71.

[a] i.e. after allowance for increased imports of current input.

It should be emphasized that, apart from the additional imports of materials and fuel involved, the foreign exchange cost of establishing an industry is non-recurrent, whereas, in the absence of domestic output imports have to be paid for every year.[30] The choice of the type of plant to establish, however, requires a careful survey of natural resources, and a detailed examination of costs on differing assumptions concerning technique. It also requires an appreciation of the longer-term tendencies of demand and supply in a developing economy. The establishment of almost any industry for the domestic production of manufactures which otherwise would be imported can be shown to result in large foreign exchange savings; but calculations relating only to foreign exchange savings and not taking into account domestic costs cannot be used as exclusive guide to investment policy. However, it may well be that in many of the less industrialized countries actual exchange rates reflect only imperfectly the scarcity of foreign exchange as an impediment to accelerated industrialization, and that, consequently, the structure of prices provides an insufficient inducement to investment, for import substitution or export expansion.

Import substitution is also likely to be important for capital goods. Unless exports are a fairly large, and preferably rising, proportion of national product, or unless there are other means of sharply raising foreign exchange receipts, efforts to increase the share of industrial investment as a prerequisite for faster growth must, sooner rather than later, come up against the limit set by foreign exchange resources to imports of machinery. The determined drive to industrialization in Yugoslavia, for example, was made possible only by the priority given to establishing basic producer goods industries, including many kinds of machinery and equipment. Between 1948 and 1958, total investment in equipment and machinery amounted to nearly 3,000 billion dinars. Commodity exports during this period, however, totalled only 880 billion dinars, or less than one-third of the investment in equipment and machinery. In the absence of a rapid development of domestic capital-goods industries, such heavy investment in equipment and machinery would have been impossible even if all the export proceeds and foreign grants and credits had been devoted exclusively to the imports of equipment and machinery.

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[29] In Turkey calculations made for 21 representative projects financed by the Industrial Development Bank in 1958 show corresponding gains. Against a cost of foreign exchange of $3.2 million, the amount of net foreign exchange to be earned or saved per year was estimated at $11.5 million, showing an average ratio of net saving to cost of 3.6, with a range from 2.1 to 16.7. See Turkiye Sinai Kalkinma Bankasi, *Annual statement for the period ended 31 December 1958*, Istanbul 1959, p. 80.

[30] " In order to feed the fresh additions to the population at the rate of 5 million persons per year, it would be necessary to provide an additional quantity of 700,000 tons of food grains *every year* which would require $947 million of foreign exchange over a period of five years. The cost can be reduced to $284 million of foreign exchange in a five-year period if an additional quantity of 350,000 tons of ammonium sulphate is ordered from abroad *every year*, at least two years in advance of the crop season. The cost can be further reduced to $263 million (out of which the foreign exchange component would be $105 million) over a five-year period if a new fertilizer factory of 350,000 ton capacity is started *every year*; this would call for decision four or five years ahead of the crop season concerned. The apportioned cost of a heavy machine building factory which would manufacture machinery in India to install *every year* a new fertilizer factory of 350,000 ton capacity would be, however, so small as $25 million or $32 million with a foreign exchange component of perhaps $17 million or $21 million. Such a decision would have to be made only once but eight or ten years in advance of the season in which the fertilizer would be used....

" Wise utilization of $21 million of foreign exchange once-for-all can lead, in time, to a saving of $945 million of foreign exchange in imports of food grains over a period of five years.

" Similar considerations hold good in other crucial sectors. An investment of $315 million, including $168 million of imported machinery, would be required to install a million-ton steel plant with a product value of $84 million or $95 million. A heavy machine building factory with an investment of $168 million, with foreign imports worth about $105 million would produce every year machinery worth roughly $168 million or the equivalent of imported machinery needed to set up a million-ton steel plant. Once such a heavy machinery factory gets into production, it would be possible to start a new million-ton steel plant *every year* out of our own resources. An investment of $63 million in a plant to manufacture mining machinery would produce goods worth about $63 million per year. An investment of $210 million in heavy electrical equipment (generators, switchgear, heavy motors, rectifiers, transformers, etc.) would give products of the value of about $147 million per year; and so on." (Anniversary address by Professor P. C. Mahalanobis, on 5 January 1958, reproduced in *Science and National Planning*, National Institute of Sciences of India. Original figures in rupees have been converted into dollars at the official exchange rate.)

2. INTERNAL ECONOMIC BALANCE

Raising the long-term rate of growth of any economy is likely to involve increasing not only the absolute volume of investment, but also its relative share in gross national product. This in turn means increasing either domestic saving or the import surplus, or both. As was seen in the preceding section, the import surplus as a share of gross national product in the countries under review has either remained constant or fallen from the very high levels of the immediate post-war years. Hence, the problem of maintaining balance between the flow of goods and services and of money incomes, during the process of economic growth, is primarily one of raising the rate of saving.

When the expansion of income generated by higher investment is matched by a rise in neither domestic saving nor the import surplus there is an increase in the pressure of demand on available resources, which is expressed in price rises (open inflation) or, if physical and price controls are introduced, in shortages and black markets (suppressed inflation). The pressure is liable to be greater when the higher investment coincides with stagnating or falling agricultural output caused by adverse weather conditions or institutional factors. Unless the increase in monetary income is neutralized by higher private saving or converted into public saving by energetic fiscal and other measures, inflationary pressures tend to cumulate and may eventually frustrate the effort to attain a higher rate of growth.

Since the contribution of foreign aid, credit, or direct investment is bound to be limited, the less industrialized countries — like most industrialized countries — are confronted with the dilemma of promoting a rapid rate of growth while at the same time maintaining balance-of-payments equilibrium. But in the initial period, owing to the existence of surplus manpower, very low yields in agriculture, and usually some excess capacity in industry, it is possible for these countries to raise output quite rapidly. If, by means of vigorous government policies, part of this increase in output is devoted to raising the ratio of saving and investment, the enlarged volume of investment can in turn generate a larger increase in total output and consumption than if the rate of investment was unchanged or only slightly raised. A steady expansion of total demand is required if the less industrialized countries are to achieve their aim of rapid economic growth, but the continuing pressure of demand must be prevented from so inflating domestic cost levels in relation to those abroad as to hinder export earnings and generate effective demand for imports which exceeds import capacity.

The possibility of augmenting foreign exchange receipts through larger exports and external finance and of making maximum use of these resources was discussed in the preceding section. This section reviews the post-war experience of the countries in this group in relation to two problems: the adjustment of the level and pattern of aggregate domestic expenditure to available resources (or vice versa) and the raising of the rate of private and public saving to finance higher investment by non-inflationary means; it also draws attention to the need for devising fiscal and monetary policies appropriate in the context of economic growth.[31]

(a) Factors affecting internal economic balance

Examination of the experience of the countries of southern Europe and Ireland during the 1950s does not reveal any simple relationship between the rate of economic growth, the movement of prices, and the balance of payments (see Chart 1). Broadly speaking, three patterns may be distinguished: in Greece and Yugoslavia there has been both a rapid rate of expansion and internal economic stability — particularly since the mid-fifties [32] — partly as a result of a large import surplus; in Portugal, where the rate of growth has been relatively low and foreign exchange reserves large and rising, prices have been stable, whereas in Ireland the import surplus has fluctuated quite widely and the price level has been less steady; in Spain and Turkey, high rates of growth in recent years have been accompanied by strong inflationary pressure — prices have doubled in Turkey since 1950 and risen by more than 50 per cent in Spain (see Table 8). Of the factors giving rise to these differences among countries in their degree of internal stability, the ability of countries to provide for a rising volume of gross capital formation, to adapt the structure of output to the changing pattern of demand, and to raise the level of saving (or increase the external deficit) has been of salient importance.

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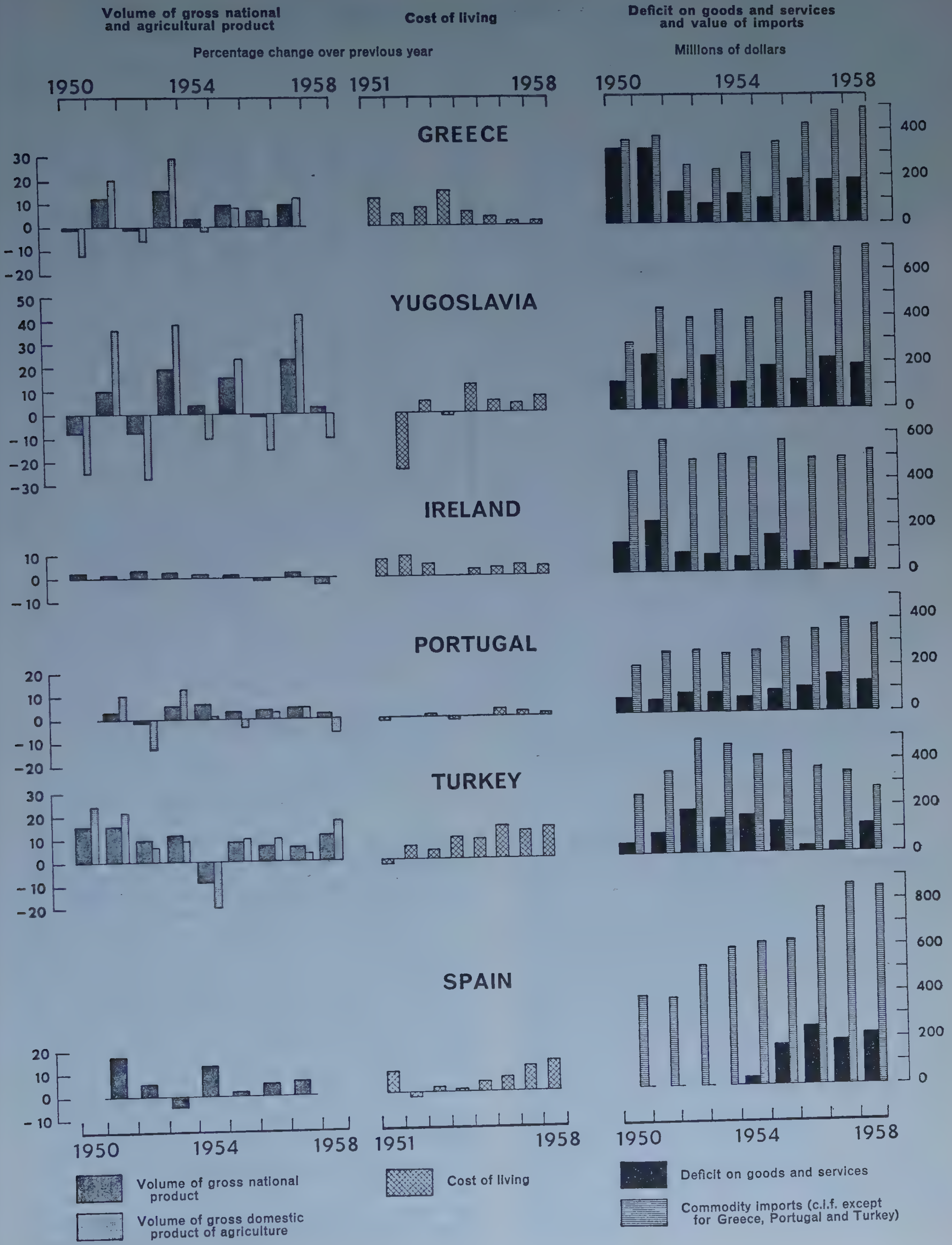
[31] In this section only the period from 1950 is studied. The preceding ten years were influenced by the second world war and its aftermath, when problems of internal balance were related to these exceptional circumstances. In pre-war years the problem scarcely arose at all, since employment and activity were allowed to settle at whatever level assured equilibrium in the balance of payments and the domestic economy, and active policies of economic development were seldom pursued. Southern Italy is also excluded from this section not only because separate data are rarely available, but also — and more importantly — because the problem of internal (and indeed of external) balance in one part of an integrated economy cannot be isolated from that of the economy as a whole.

[32] In Greece, prices rose by more than 50 per cent between 1950 and 1954, but following the devaluation in 1953 they stabilized at this higher level.

CHART 1 — Gross national and agricultural product, cost of living and balance of payments



Sources and methods : See Appendix B.

TABLE 8

Selected data on prices and wages

1950 = 100

		1951	1952	1953	1954	1955	1956	1957	1958
Greece	Cost of living	112	118	128	147	156	162	165	168
	of which: Food	106	111	119	133	139	144	145	..
	Import prices [a]	100	102	154	182	182	191	195	180
	Net indirect taxes [b]	109	113	112	115	117	117	115	..
Ireland	Cost of living	107	117	123	123	127	132	138	144
	of which: Food	106	118	128	128	133	135	140	..
	Import prices	122	124	116	117	121	123	130	124
	Weekly earnings in manufacturing [c]	..	..	100	103	108	114	118	125
	Net indirect taxes [b]	94	112	117	115	114	126	128	130
Portugal	Cost of living	99	99	100	99	99	102	104	105
	of which: Food	98	98	101	100	100	104	105	..
	Import prices	129	134	120	120	122	120	122	118
	Daily earnings in manufacturing [a]	100	107	110	109	111	114	..	..
	Net indirect taxes [b] [d]	..	100	103	104	115	111	112	114
Spain	Cost of living	109	107	109	110	114	121	134	152
	of which: Food	109	105	105	106	111	119	134	..
	Import prices	142	158	169	166	168	169	180	195
Turkey	Cost of living	98	104	108	118	128	146	163	185
	of which: Food	96	103	106	116	121	139	156	..
	Import prices	116	123	120	125	145	149	159	233
	Hourly earnings in manufacturing [e]	..	..	..	100	101	124	..	..
	Net indirect taxes [b]	93	97	93	98	94	86	90	83
Yugoslavia [d]	Cost of living	130	100	105	103	117	122	123	131
	of which: Food	159	100	108	108	127	135	138	..
	Import prices	103	100	95	93	97	96	103	99
	Monthly earnings in manufacturing and mining	..	100	101	108	112	122	136	..

Sources : IMF, *International Financial Statistics*; UN, *Monthly Bulletin of Statistics* ; *Statistical Yearbook 1958 ;* OEEC, *Statistical Bulletins - General Statistics;* and national statistics.

[a] 1951 = 100.

[b] Value index of indirect taxes less subsidies related to value index of gross national product.

[c] 1953 = 100. [d] 1952 = 100. [e] 1954 = 100.

The Changing Pattern of Output and Expenditure

In all countries of the group final expenditure rose in volume during the fifties, although there were temporary setbacks due to either crop failure (as in Greece in 1952 and Turkey in 1954), temporary readjustments following balance-of-payments difficulties (as in Ireland in 1956 and Turkey and Spain in 1958-1959), or special circumstances (as during the period of economic stress in Yugoslavia from 1950 to 1953).

The increased share of gross fixed capital formation has been a major factor promoting the rise in final demand. As can be seen from Chart 2, the volume of domestic gross fixed investment rose in most countries both absolutely and relatively to national product.[33] However, in Ireland neither fixed investment nor national product has risen significantly since 1953, and indeed the investment ratio has fallen; in Spain and Turkey investment reached a peak between 1956 and 1958 and has since levelled off. The rise in gross capital formation was partly financed by the import surplus (see below), but with the principal exceptions of Spain and Portugal the contribution from this source has tended to decline over the period. Further, there was also a fairly general rising trend in public consumption, but since private consumption, while rising per capita, grew more slowly than national product, part of the increase in domestic resources was available for a larger volume of investment.

The pre-war structure of aggregate demand has gradually changed. The increase in personal incomes has been accompanied by an increase in demand for certain foodstuffs, for manufactured consumers' goods

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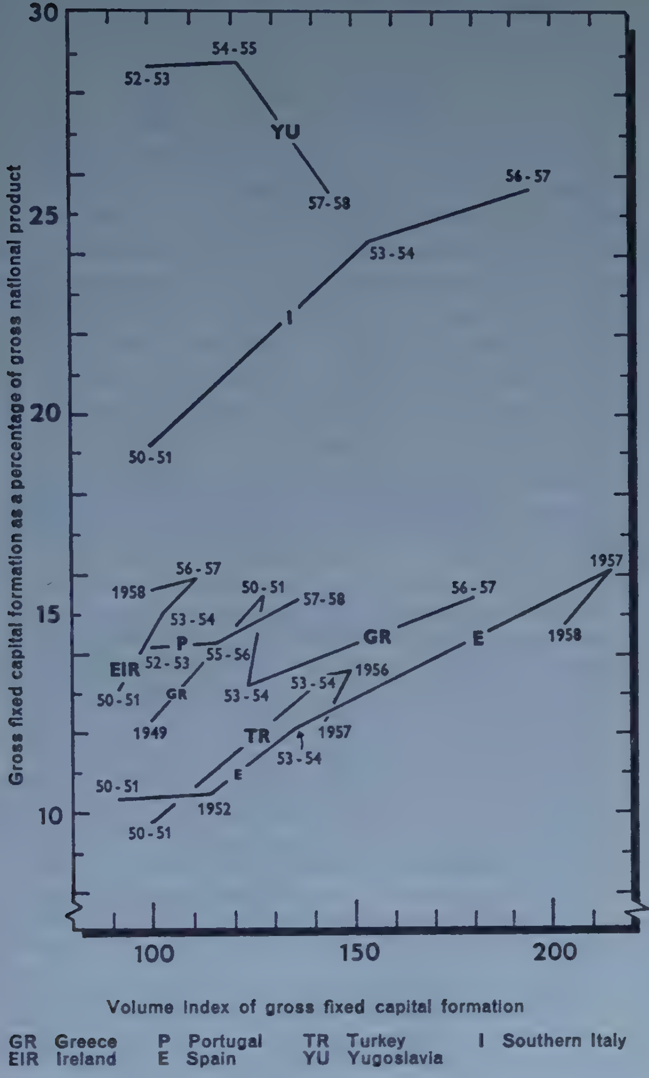
[33] In Yugoslavia it fell slightly after 1953 (having been raised from 10 per cent of national product in 1945 to 28 per cent in 1948), but remained at a comparatively high level. (Gross fixed investment is here measured in relation to gross material product, adjusted for services. See Chapter VII, footnote 12.)

CHART 2

Growth of gross fixed capital formation and its relation to gross national product



Sources and methods : See Appendix B.

NOTE. — For each country and time-period the value at current prices of gross fixed capital formation in relation to gross national product is shown on one axis and the index of volume of gross fixed capital formation on the other. The base-period is 1949 for Greece, 1950-1951 for Ireland, southern Italy, Spain and Turkey and 1952-1953 for Portugal and Yugoslavia.

with a higher demand elasticity, and for housing,[34] but output (plus imports) has often fallen short of effective demand. The sluggish growth of agricultural output, in conjunction with the generally low short-run elasticity of supply of industrial products has often been of cardinal importance in this respect.

The most stubborn difficulties of attaining or maintaining internal balance presumably arise from the relatively large share of agriculture in the total output of the less industrialized countries and the large share of food in consumers' average and marginal expenditure as a result of low living standards. Almost always the emergence of strong inflationary pressures in these countries has been intimately associated with an increase of demand for food (particularly in urban areas) in relation to its supply. It is generally true that, if effective demand for food is allowed to outrun supply, inflation is almost inevitable during a process of expansion because of the preponderance of food prices in the cost of living. Conversely, a high rate of expansion without inflation can be sustained only if either agricultural supplies can be increased, or disposable incomes held in check, sufficiently to prevent a steady rise in food prices.[35] In this respect, the two countries which have expanded most rapidly in recent years, Greece and Yugoslavia, have been most successful in raising food supplies per head, whereas the fluctuations in agricultural output in Turkey illustrate the difficulties of preserving internal balance.

Agricultural output in Turkey rose steadily by over 40 per cent between 1950 and 1953,[36] fell by 20 per cent in 1954 owing to a drastic crop failure, and in the following two years recovered only about one-half of the decline. Capital formation, both private and public, expanded strongly during this period — particularly between 1953 and 1954. So long as agricultural output was growing and higher aggregate demand could be met in part by a mounting import surplus, prices rose only slowly; but the acceleration of investment from 1954 onwards, when agricultural output was gradually falling, sharply increased the pressure of demand. At the same time, exchange reserves could no longer finance so large an import surplus and imports were severely restricted — even to the point of starving current industrial production of raw materials and other supplies. This was also the experience of several other western European countries, and India, in the mid-fifties.[37]

Besides the difficulties experienced in maintaining an adequate volume of agricultural output, the generally low elasticity of supply of industrial output — despite widespread under-utilization of capacity (particularly in textiles) and much under-employment — has also impeded the smooth adjustment of supplies to growing demand (see Chapter VII, section 3). The low elasticity of supply of both producer and consumer goods has been the outcome of either technical or semi-technical factors, such as the difficulty of adapting equipment to new requirements, of shortages of essential imported materials or spare parts, or of more general economic considerations such as the attractiveness for merchants and entrepreneurs of hoarding stocks.[38]

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[34] For details on the income elasticity of various consumers' goods see *Economic Survey of Europe in 1958*, Chapter V.

[35] For certain essential commodities, such as wheat, supplies may also be increased by drawing on government or privately held stocks. However, to hold large stocks in these countries poses problems of finance and credit, and also requires investment in storage capacity.

[36] Much of this expansion was due to an increase in area. See Chapter VII, section 2.

[37] In an industrialized country like France — which still has an important agricultural sector — events in 1954-1957 were analogous (see the SURVEY for 1958, Chapter III, section 3). In Yugoslavia agricultural production has been subject to a two-year cycle during the post-war period (see Chapter I, section 3 above) and the balance of trade, when lagged by one year, exhibits an almost perfect correlation with agricultural production. The fluctuations in the trade balance are, of course, in large part accounted for by opposite changes in exports and imports of agricultural products, but industrial production is similarly influenced by the variations in both domestic demand and supplies of domestic raw materials.

The Rate of Domestic Saving [39]

Except in Greece and Yugoslavia, gross domestic saving has risen only moderately during the fifties (see Table 9), to a level which is less than two-thirds of the rate prevailing in the industrial countries of western Europe.[40] Only in Yugoslavia, where domestic saving has been raised to above 20 per cent of national product owing to the efforts of the public and corporate sectors was the ratio equal to or higher than that in the more industrialized countries.[41]

The limited increase in domestic saving has generally been provided by the private sector, although there also appears to have been some rise in public saving.[42] Public saving has constituted only a small part of total saving — about 1 to 2 per cent of gross national product — in all countries except Yugoslavia and Portugal (where the proportion was slightly higher at 3.6 per cent in 1957).[43] In Greece public saving has tended to be an increasing share of the total since the public deficits of 1950-1952 have been subsequently converted into surpluses amounting to 1 to 2 per cent of the gross national product. In Turkey and Spain, the general-government surplus rose throughout the period, but was largely offset by the operating deficits of the public enterprises and, as in Yugoslavia, by losses resulting from the operation of multiple exchange rates.[44] Such combined deficits represented up to 3 per cent of the gross national product.[45]

From the limited statistical data available for these countries, it appears that private saving rose most sharply in Greece,[46] induced by the accelerated growth

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[38] Monopolistic tendencies — favoured by the small size of the market, the lack of capital funds, the bias of commercial banks towards established lines, and sometimes the virtual absence of competing imports — were also important factors.

[39] The estimation of domestic saving presents a number of statistical difficulties, and in these countries reliable data are not always available even for the public sector (see Chapter V, section 2, above). Statistics of corporate saving in most countries of southern Europe are scanty, but it is reasonable to assume that it has been rising at least in line with industrial output. Direct information on personal saving can be derived only from partial and unrepresentative data on changes in certain personal financial assets. Consequently, it has not been possible to measure separately corporate saving and saving by persons (including unincorporated enterprises) and the following paragraphs distinguish only public saving from total private saving. Even this total, however, is a residual and susceptible to a fairly wide margin of error. These remarks apply, *mutatis mutandis*, to Ireland, where it should be noted that personal (and total) saving also includes changes in livestock. For a fuller discussion of the measurement of saving, see *Economic Survey of Europe in 1955*, Appendix C, p. 11. It may be noted that the Conference of European Statisticians is studying the problems of improving national statistics of saving (and related statistics of financial assets and liabilities) and of increasing their international comparability.

[40] Provision for depreciation in 1957 was of the order of 3-7 per cent of gross national product in the countries under review and it follows that, except in Yugoslavia, the ratio of net domestic saving to national income was 5 per cent in Portugal and 9 per cent in other countries. In Yugoslavia the ratio was about 15 per cent.

[41] In Yugoslavia the distinction between " public " and " corporate " saving is blurred. " Public " saving, defined as the current budget surplus, is no higher in Yugoslavia than in other countries of the group. The bulk of saving, however, is financed from the gross profits of enterprises, which make various compulsory payments to investment funds (e.g. the General Investment Fund and the funds of lower authorities), and may freely dispose of the balance (the producer's fund) to finance their own investment projects. For the present purposes the compulsory contributions by enterprises to investment funds are regarded as public saving.

[42] Public-sector saving includes the balance of general-government current transactions whether or not financed from budgetary funds, as well as the operating surpluses or deficits of public enterprises, when such data are available. Thus, it may frequently happen that the public sector shows a surplus (on the definition used in Table 9), whereas the budget presented to the legislature shows a substantial deficit. Although there are differences between the accounting concepts employed in budgets and those used in national accounts, the discrepancy arises mainly from the fact that government budgets generally include publicly financed investment. (See Chapter V, section 3.) For the saving mechanism in Yugoslavia, see footnote 41.

[43] The level of public saving in industrialized countries of western Europe was comparatively much higher; for details see Chapter V, section 2. For the role of fiscal policy in public saving, see p. 24 below.

[44] The accounts involved were: the Fondo de Retorno in Spain, the Fund for Price Differences in Foreign Transactions in Yugoslavia, and accounts opened in the books of the Central Bank and of the Agricultural Bank in Turkey. Losses on these various accounts were mainly financed from the banking system.

[45] In Turkey the Toprak Office (wheat purchasing agency) directly subsidized exports of wheat with Central Bank funds. An indication of the size of the deficit of the Toprak Office alone is given by the rise in its advances from the Central Bank which amounted (including cancellation in 1955 of old debts) to £T 179 million at the end of 1948 and to as much as £T 1,510 million at the end of 1958. From 1955 onwards the operating deficits of the state enterprises in general rose sharply to some £T 200-250 million in 1956 and 1957, and some £T 300 million in 1958, or about half the budget surplus. Among the industrial enterprises, various factors account for the deficits of the Etibank and Emlak Bankasi, but those of the sugar factories and the Meat and Fish Agency primarily represent the cost of consumer subsidies. These four institutions jointly accounted for most of the total deficit of public enterprises. In Spain the major public enterprises running a deficit were the National Wheat Service (Servicio Nacional del Trigo) and the railways (RENFE).

[46] In Greece, the average annual additions to savings and time deposits rose from Dr. 0.6 billion in 1952-1953 to Dr. 1.6 billion in 1955-1957. In Portugal where the trend was less pronounced, the average annual increase in 1955-1957 amounted to Esc. 0.9 billion compared with Esc. 0.8 billion in 1953-1955. Fluctuations in the level of savings deposits in Ireland were very large: in particular, there was a sharp decline in 1955-1957,

TABLE 9

Saving and investment in southern Europe and Ireland

Percentages of gross national product at market prices

		1950	1951	1952	1953	1954	1955	1956	1957
Greece	Gross domestic capital formation	20.9	18.7	14.3	15.3	13.8	15.2	17.3	18.6
	Financed by:								
	Domestic saving	3.3	6.1	5.7	9.3	7.4	10.0	10.4	11.7
	of which: Public	−2.2	−0.7	−0.6	2.0	1.4	1.5	0.3	1.1
	Private	5.5	6.8	6.3	7.3	6.0	8.5	10.1	10.6
	Import surplus	17.6	12.6	8.6	6.0	6.4	5.2	6.9	6.9
Ireland	Gross domestic capital formation	14.9	18.9	15.1	14.1	15.3	18.5	14.8	12.2
	Financed by:								
	Domestic saving	4.4	1.3	11.1	10.7	12.2	9.8	10.1	11.7
	of which: Public	0.8	−1.4	0.2	−0.9	1.1	1.1	1.3	1.9
	Private	3.6	2.7	10.9	11.6	11.1	8.7	8.8	9.8
	Import surplus	10.5	17.6	4.0	3.4	3.1	8.7	4.7	0.5
Portugal	Gross domestic capital formation	..	..	17.6	16.6	15.5	14.5	15.5	16.6
	Financed by:								
	Domestic saving	..	..	12.8	12.0	11.9	10.1	11.1	9.4
	of which: Public	..	..	3.0	2.5	1.8	2.8	3.2	3.6
	Private	..	..	9.8	9.5	10.1	7.3	7.9	5.8
	Import surplus	..	..	4.8	4.6	3.6	4.4	4.4	7.2
Spain	Gross domestic capital formation	11.9	9.2	10.5	11.7	12.5	14.5	15.5	16.1
	Financed by:								
	Domestic saving	..	..	..	..	12.5	12.4	12.9	12.1
	of which: Public	..	..	0.8 *	1.3 *	0.8 *	0.8 *	0.3 *	1.0 *
	Private	..	..	..	..	11.7	11.6	12.6	11.1
	Import surplus	..	..	..	..	—	2.1	2.6	4.0
Turkey	Gross domestic capital formation	9.4	10.2	12.6	12.5	14.5	14.1	13.6	12.3
	Financed by:								
	Domestic saving	8.7	8.2	8.9	9.9	11.6	12.4	13.3	12.0
	of which: Public	0.7 *	0.5 *	1.0 *	0.5 *	0.5 *	2.0 *	2.0 *	2.0 *
	Private	8.0	7.7	7.9	9.4	11.1	10.4	11.3	10.0
	Import surplus	0.7	2.0	3.7	2.6	2.9	1.7	0.3	0.3
Yugoslavia	Gross domestic capital formation	..	..	27.9	29.4	29.9	27.9	26.1	25.1
	Financed by:								
	Domestic saving	..	..	24.3	24.0	27.6	24.8	24.2	22.4
	Import surplus	..	..	3.6	5.4	2.3	3.1	1.9	2.7

Sources and methods : See Appendix B.

NOTE. — For Spain, Turkey and Yugoslavia gross capital formation excludes changes in stocks, with a corresponding effect on the estimate of saving. For the definition of public saving, see Appendix B.

of output after the monetary reform of 1953 and the check to inflation.[47] In Turkey, the relatively rapid increase in output and moderate price stability up to 1954 were also important factors in raising the private savings ratio, which has since declined somewhat. Portugal is the only country of the group in which the ratio of private saving to gross national product was apparently lower in the later than in the earlier year of the period covered by Table 9. In Ireland, private saving has been somewhat erratic, mainly on account of fluctuations in personal saving.[48]

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partly due to a capital outflow, whereas there had been an increase in 1953-1955. In Yugoslavia personal deposits have risen markedly since 1956, but the increase in savings deposits has been very small in relation to gross national product; saving by individual farmers and saving for private dwelling construction also appear to have risen.

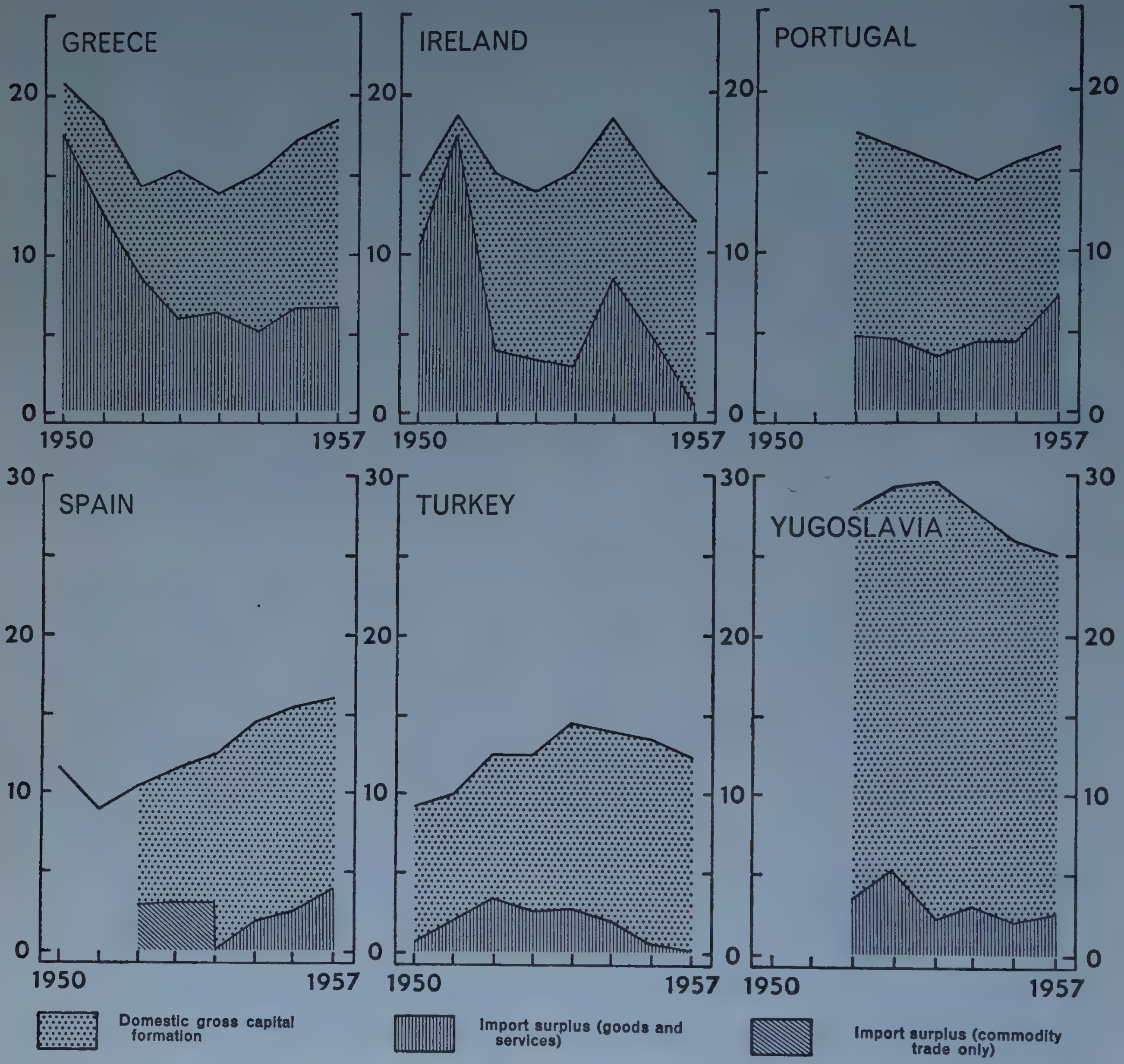
[47] In addition, there was dishoarding of gold sovereigns and foreign exchange which, to the extent that the counterpart in national currency was not spent, constituted a net addition to real resources.

[48] See footnote 39 and *Economic Development* (Pr. 4803), Dublin 1958, pp. 34-36.

CHART 3

Domestic gross capital formation and the import surplus in countries of southern Europe and Ireland, 1950-1957

Percentages of gross national product at market prices



Source: Table 9.

Fluctuations in the Import Surplus[49]

The import surplus has in most countries constituted a declining proportion of gross domestic investment (see Chart 3).[50] It fell from 18 per cent of gross national product in Greece in 1950 to about 7 per cent in 1956-1957; or from some three-fourths to one-third of gross domestic investment. This latter proportion also applied broadly to Portugal[51] and Spain, but in contrast to the remaining countries of the group, the import surplus in these two countries has been a growing share of national product. The gradually diminishing import surplus is in some countries the result of an easing of internal economic strains, and in others of restrictive import policies necessitated by the near-exhaustion of foreign exchange reserves.[52]

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[49] The import surplus is here defined as the balance of goods and services according to the OEEC standardized system of national accounts, and is the relevant concept for measuring the resources additional to gross national product that are available for expenditure. It is no indication either of the change in the composition of the external monetary assets and liabilities of a country or of movements of foreign exchange reserves.

[50] For an alternative relationship to national product, based on an import surplus net of private donations, see footnote 6.

[51] Portugal, which enjoys an exceptionally high level of exchange reserves, drew more on external resources (including a payments surplus of the overseas provinces with the rest of the world) at the end, than at the beginning, of the period.

In two of the larger countries, Spain and Yugoslavia, which depend less on imports of investment goods than do other countries of the group, it was possible to provide for a high or rising level of investment from enlarged domestic supplies of such goods; but the goal of balancing the external account meant preventing the growth of consumer demand from swelling the import bill. This was attempted primarily by means of quantitative import controls or the application of a penal rate within the system of multiple exchange rates. In Turkey, higher investment did not have a serious direct effect on imports so long as it was mainly in infra-structure and other construction, or in agriculture; but after 1953-1954 a moderate change in the structure of investment increased demand for imported machinery, while the financing of imports was rendered more difficult by the running down of foreign exchange reserves.

Financial Resources for Investment

Numerous statistical difficulties make it hard to assess with precision how investment has been financed in the countries studied. Direct public financing (excluding external grants and loans) appears to have accounted for about one-half of the total in Yugoslavia, at least one-third in Spain, and about one-fourth in Turkey. In the latter two countries, public funds for investment were also obtained without great difficulty from the banking system itself, whereas in the remaining countries the predominant means were self-finance and personal assets. Apart from Turkey and Spain, where there was particularly rapid credit expansion, the proportion of total fixed investment directly financed by banks and specialized credit institutions appears to have been generally rather lower than in industrial western European countries; and, with the possible exception of Spain, equity financing has been of minor importance.

TABLE 10

Money supply in southern Europe and Ireland

Index numbers, 1950 = 100 [a]

Country	1951	1952	1953	1954	1955	1956	1957	1958
Greece [b]	..	100	146	173	218	245	293	..
Ireland	107	112	118	124	126	126	135	134
Portugal	110	111	116	130	136	146	154	165
Spain	117	129	139	155	178	214	250	286
Turkey	124	145	178	199	250	309	399	423
Yugoslavia [b]	..	100	87	126	113	134	203	218

Source : IMF, *International Financial Statistics*, February 1960.

NOTE. — Money supply includes currency, monetary liabilities of the Central Bank to the private sector, and demand deposits with deposit money banks. For Yugoslavia, however, see Appendix B.

[a] Index numbers are based throughout on end-of-year returns.

[b] End 1952 = 100.

Monetary Developments in the Fifties

There was a marked increase in the money supply in all countries in response partly to the increasing monetization of the economies, partly to expanded output and the competition for investment funds — particularly where the money supply rose fastest, e.g. a four-fold increase in Turkey since 1950 and a three-fold increase in Spain (see Table 10). In some countries, special factors were also involved, for example the decentralization of planning in Yugoslavia and the consequently greater use of credit, and the reconstitution of bank balances in Greece following the devaluation of 1953. In the course of the decade, the index of liquidity rose much less in Ireland and Yugoslavia [54] than in Greece, Spain and Turkey — the only three countries in which the money supply rose at a significantly faster pace than the value of gross national product (see Chart 4). In Greece this was primarily due to the reconstitution of bank balances (principally as a result of the dishoarding of gold sovereigns); since prices stabilized after the initial adjustment to devaluation, the ensuing high level of liquidity, far from being a symptom of inflation, reflected a new and more normal working relationship between the stock of money and the level of activity.[55]

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[52] The tendency for the import surplus to decline in relation to the gross national product during the fifties was, of course, partly the effect of special factors, e.g. the depressed level of gross national product in Greece in the early fifties, and — as has been mentioned — of the widespread use of import controls in Spain and Turkey, and to a lesser extent in Yugoslavia. These factors inevitably blurred the relationship which is to be expected between a rising volume of capital formation and the import surplus in the first phases of development.

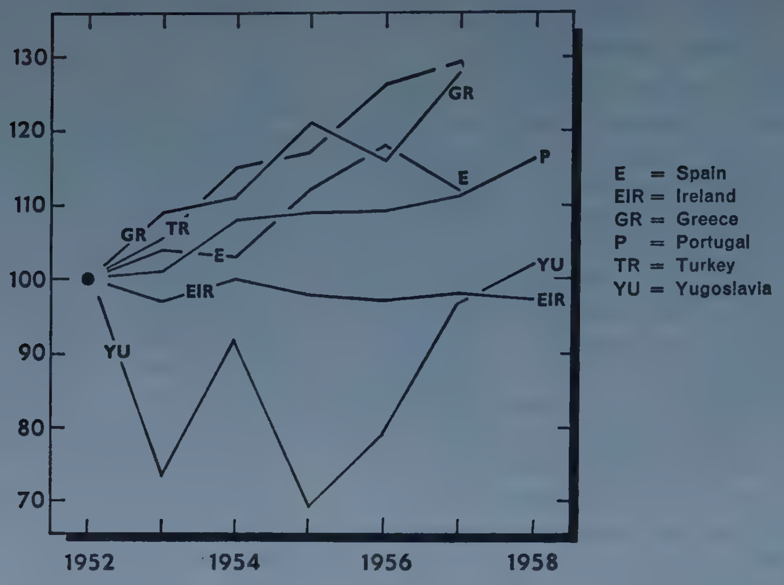
[54] Money supply constitutes only a very small part of total bank liabilities in Yugoslavia. While the monetary authorities have succeeded in limiting its expansion to the requirements of rising national income, they have not attempted to check the rather rapid growth of quasi-monetary liabilities, in particular of partly or completely frozen outstanding balances of investment funds.

[55] The increase in the money supply in Greece seems to have been accompanied by a low velocity of circulation, since part of the bank balances remained idle as a result of restored confidence in the currency after the devaluation. Other factors responsible for relative price stability were the increase in the supply of consumers' manufactured goods and agricultural products, the liberalization of imports, together with a gradually tightening control over credit via the Currency Committee, and a reorganization of the banking system.

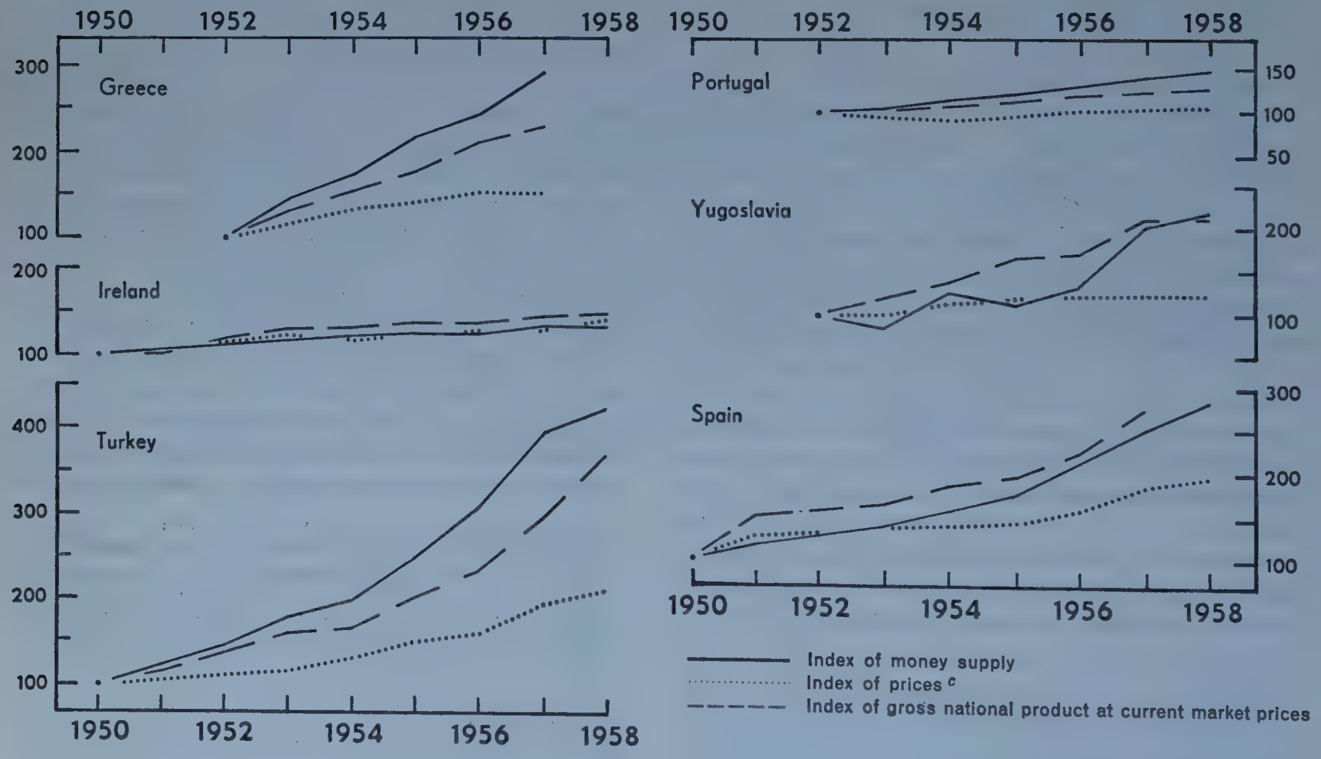
CHART 4

Monetary expansion and indices of liquidity

Index of liquidity,[a] 1952 = 100



Index of money supply, prices and the gross national product, 1950 = 100 [b]



Sources and methods : See Appendix B.

[a] Liquidity represents the ratio of the index of money supply to the index of gross national product at current prices. (For a definition of money supply, see Table 10.)

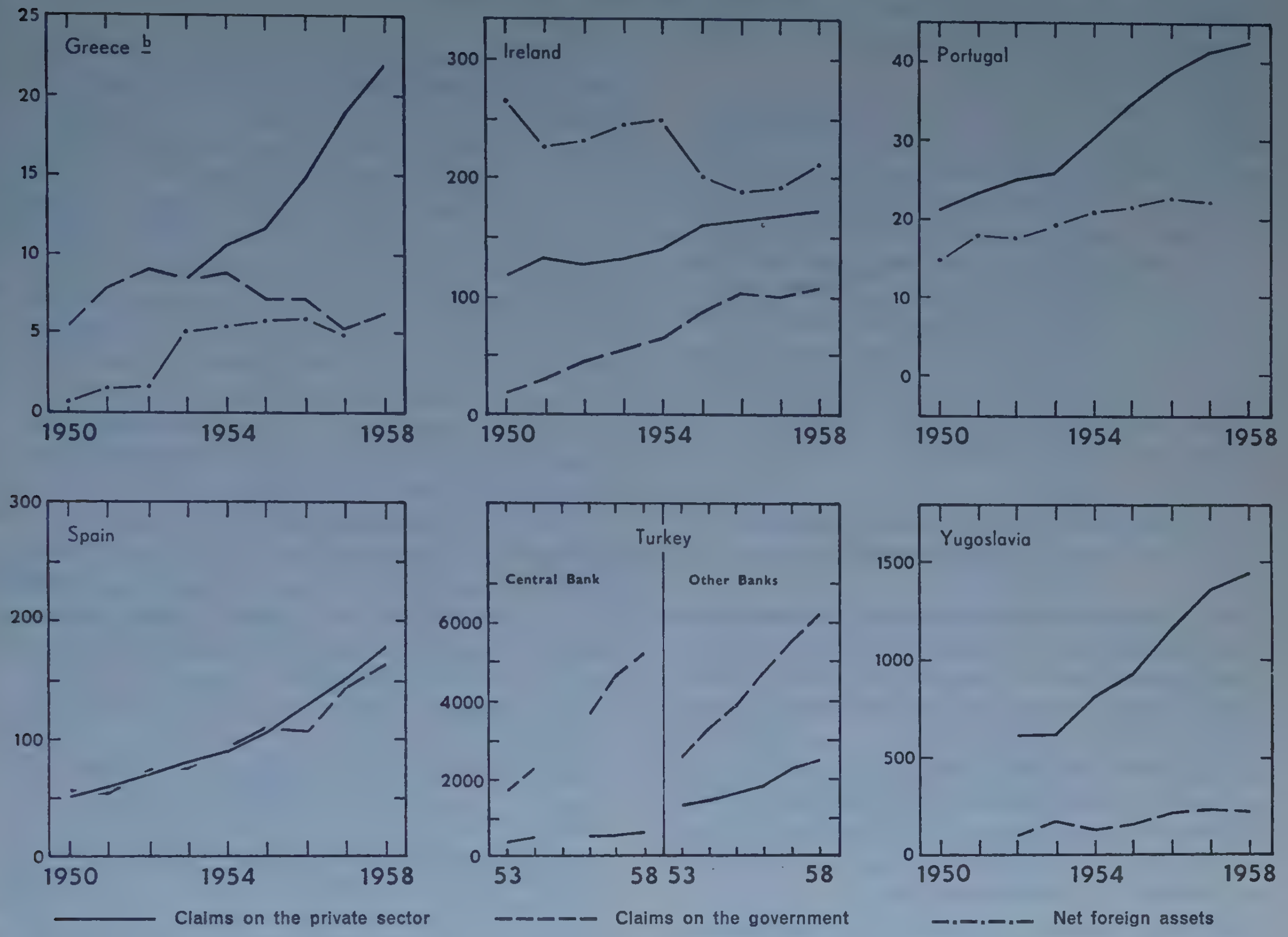
[b] For Greece, Portugal and Yugoslavia, 1952 = 100.

[c] The price index is that implied by gross national product at current and at constant prices.

CHART 5

Main factors in the expansion of bank assets

Billions of national currency units,[a] end of year



Sources : International Monetary Fund, *International Financial Statistics* : and figures directly supplied by the Central Bank of Turkey.

NOTE. — *Portugal :* The solid line represents claims on the government and private sectors. *Yugoslavia :* The solid line represents claims on enterprises and consumers. *Turkey :* Separate data are shown for the central bank and for other banks. The dotted line for the central bank represents its claims on the public sector, and that for " other banks " represents credits of state-owned banks (primarily to the public sector). The solid line for the central bank represents its claims on the private sector, and that for " other banks " represents credits extended by private banks (primarily to the private sector).

[a] For Ireland, millions.

[b] Net foreign assets have not been adjusted for the revaluation of gold and foreign-exchange holdings in 1953.

In Spain and Turkey, on the other hand, the increase in liquidity was associated with the creation of new money.

As shown in Chart 5, in general the composition of bank assets during the fifties was characterized, on the one hand, by the secondary importance of external assets (except in Ireland [56] and Portugal) and, on the other, by the differing importance among countries of public-sector financing. In Turkey, credit supplied to the public sector rose sharply after 1954, and accounted for about four-fifths of the total increase in credit between 1950 and 1958, the principal borrowers being the Treasury, the Toprak Office, and other industrial public enterprises.[57] In Spain, credit extended to the public and private sectors rose in roughly equal proportions, and, as in Turkey, the major public borrowers were the National Wheat Service and the industrial public enterprises (INI). Credit expansion in Greece was concentrated in the private sector and was particularly marked for agriculture, imports, and other short-term finance;[58] in Portugal, the pattern seems to have been similar. In Ireland, mounting budget deficits (basically the result of public financing of dwellings and other social investment, and of current transfers) were largely financed by public capital issues and the sale of publicly-held external assets.

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[56] Irish external assets, which consist mainly of funds held in London and also constitute the liquid reserves of the commercial banks, declined during the period. This decrease was due not only to goods and services deficits, but also to adverse capital movements, especially in 1957.

[57] Of the total of £T10 billion extended to the public sector, these enterprises received £T6 billion, of which £T2.4 billion were financed by the Central Bank.

In those countries in which the monetary expansion has been greatest, advances from the central bank to the government have done much to broaden the credit base by increasing the liquidity of the commercial banks. Moreover, central banks have in most countries rediscounted private or public short-term paper. The importance of this "credit multiplier" has depended on the conventional level of commercial banks' reserve requirements, and on central banking institutions and policies, but was crucial in Spain and Turkey, which ultimately took special measures to limit commercial bank liquidity.

(b) Domestic policies for the maintenance of internal balance

For developing countries the central problem is that of raising the level of domestic saving — and, as shown above, some of the countries under review have had greater success than others.[59] This subsection reviews the fiscal policies adopted by southern European countries and Ireland during the fifties and the monetary reforms introduced in those where serious problems of imbalance had set in; the next discusses the usefulness — in a context of rising investment and growth — of different policies.

The two countries — Greece and Yugoslavia — which have been able to maintain both a high rate of growth and comparative price stability are also those in which the savings ratio has been significantly raised and in which the increase in per capita supplies of foodstuffs has been greatest. Internal pressures appear to have been most acute in those countries where a relatively large proportion of investment has been in construction — in particular of dwellings and other non-productive or slow-maturing investments (including public works and infra-structure) — and where monetary, fiscal, or other policies have either failed, or even have not expressly set out, to neutralize the additional purchasing power thus created. The point may be illustrated by the importance attached to the road programme and to projects of "city embellishment" in Turkey, and by certain infrastructure investment in Spain, partly connected with the defence programme and military aid.[60]

Fiscal Policies

Fiscal policies pursued in Yugoslavia and Ireland (and to a lesser extent in Greece) have been more exacting than in other countries of the group. In Yugoslavia, the surpluses of extra-budgetary public funds have been the principal source of finance for its very high rate of fixed capital formation — particularly in earlier years.[61] Taxes in 1958 (including contributions to a number of extra-budgetary "social funds") amounted to over one-fourth of gross national product. Budget surpluses in Greece have financed about one-fifth of total fixed investment since 1953. In other countries, the ratio of taxes to gross national product has varied from 13-14 per cent in Portugal to about 10 per cent in Spain and Turkey (see Table 11), or hardly different from pre-war years.[62]

In some of the countries under review, fiscal policies have only to a limited extent been adapted to the needs of a developing economy. Greater use of fiscal policy could include both raising more revenue (through higher tax rates and more efficient collection) and the review of expenditure, including "redistributive" expenditure (to borrow the Irish expression, which is equally relevant to the financing of the current deficits of public enterprises in Spain and Turkey).[63] The pattern of taxation has changed little

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[58] Of the total increase of about Dr. 12 billion in credit from the end of 1954 to the end of 1958, half was allocated to trade and imports, and most of the remainder to the financing of working capital.

[59] There also arise problems of "partial" or "sectoral" imbalances, notably in respect of sluggish agricultural output and the low elasticity of output of consumers' manufactures to which attention has already been drawn.

[60] Of course, social, political or other not strictly economic considerations may underlie such investment — for example, the road programme in Turkey is considered an important means for forging national unity. However, the desirability of investment which is not directly productive must be weighed in the balance with competing claims for limited resources — a problem which is particularly acute for countries in the course of development from relatively low income levels.

[61] The principal sources of finance are the special levies on enterprises' fixed assets and working capital, and taxes on revenue. Forty-eight per cent of the gross profits of enterprises was paid out either to the various "social funds" or as taxes. For further details, see *Economic Bulletin for Europe*, Vol. 10, No. 3, p. 50 *et seq.*

[62] For details on earlier post-war years and for a comparison with the pre-war period and with other western European countries, see the *Economic Survey of Europe in 1953*, p. 189 *et seq.*

[63] Cf. the discussion and strictures on Irish public investment since the war in the third report (Pr. 4668, Dublin 1958) of the Capital Investment Advisory Committee. This committee draws a distinction (pp. 4-5) between productive and redistributive investment, investment being considered redistributive to the extent that it "does not provide a flow of goods and services capable of being sold at competitive prices". Such investment thus contains an element of income transfer through subsidy and to that extent redistributes income instead of creating new primary income. The committee concludes that under this definition only parts of the state capital programme and of private investment have been wholly productive and that the rest has been in varying degrees redistributive. Examples cited of redistributive investment in Ireland are housing, tariff-protected industry, school building, and part of the public investment programme in agriculture.

TABLE 11

Government revenue and expenditure

Percentages of gross national product at market prices

	Greece		Ireland		Portugal	
	1953-1954	1957	1954-1955	1957-1958	1952-1953	1957
Revenue						
Current revenue	19.3	20.0	24.1	25.4	16.7	18.4
of which:						
Direct taxes on households	4.0	1.8	3.0	2.8	1.5	1.7
Direct taxes on corporations		1.6	2.2	2.1	3.5	3.7
Indirect taxes	11.2	11.7	15.5	16.8	7.8	8.4
Capital transfers	3.0	1.0	0.6	0.5	0.6	0.6
Total revenue of general government	22.3	21.0	24.7	25.9	17.3	19.0
Expenditure						
Public consumption	12.5	13.4	12.7	12.6	10.4	10.9
of which: Military	5.8	5.6	1.5	..	3.5	3.8
Current transfers	5.1	5.5	10.3	10.7	3.5	3.8
of which:						
Interest on public debt	0.1	0.1	2.1	2.5	0.6	0.5
Subsidies	0.3	0.6	2.2	1.8	1.4	1.3
Social security contributions	3.5	..	1.4	1.6	..	2.1
Total current expenditure	17.6	18.9	23.0	23.3	13.9	14.7
Gross capital formation	1.7	1.1	2.6	2.1	1.8	2.1
Total expenditure of general government	19.3	20.0	25.6	25.4	15.7	16.8

	Spain		Turkey		Yugoslavia	
	1950-1951	1956	1952-1953	1957-1958	1953-1954	1957-1958
Revenue						
Income taxes	3.9	4.6	2.8	3.5	2.2	2.0
Wage and profit taxes	..	..	..	..	14.1	12.4
Turnover tax, excise duties, etc.	4.0	4.2	2.6	3.0*	6.3	8.0
Customs duties	0.4	0.6	1.2	0.6	..	..
Other taxes and miscellaneous receipts [a]	0.4	0.6	5.0	5.2*	6.4	3.7
Total revenue of central government [b]	8.7	10.0	11.6	12.3	29.0	26.1 [b]
Expenditure						
Military	3.3	2.8	3.8	3.1	12.5	7.6
Other current expenditure	5.3	6.2	6.0	5.5	10.6	12.1
Capital expenditure [c]	0.9	1.1	3.1	4.1	4.1	0.8
Total expenditure of central government	9.5	10.1	12.9	12.7	27.2	20.5

Sources and methods : See Appendix B.

NOTE. — In general, data refer to calendar years or averages of calendar years. Data for Greece, Ireland and Portugal have been derived from national accounts and the individual items correspond to national accounting concepts; those for Spain, Turkey and Yugoslavia are derived from financial statistics.

[a] Including some capital transfers.

[b] For Yugoslavia, includes the federal, republican and communal budgets. Since 1955, total revenue includes taxes allocated to various extra-budgetary funds (one-quarter of total tax revenue in 1957-1958).

[c] For Spain, budgetary outlay on public works.

during the past ten years; the greater part of revenue still accrues from indirect taxes. Direct taxes on households and corporations accounted in most countries for no more than 15 per cent to 30 per cent of total current general-government revenue, or between 3 per cent and 6 per cent of gross national product.[64] When total taxation was increased, rates of both direct and indirect taxes were affected, but in general the tax net was not cast much wider, and — in particular — no very great efforts were made to tackle the problem of tax evasion, speculative profits on stocks and real estate, and the taxation of farm income (admittedly thorny political and administrative issues).[65] Hence, in an emergency, there was often recourse to import taxes, such as the " Treasury share " tax on imports in Turkey in 1958.[66]

During the last decade, current government expenditure rose slightly faster than gross national product in most countries.[67] Its composition also changed somewhat: the share of expenditure on defence and subsidies fell and that devoted to public debt and social security rose (Table 11). Defence expenditure has absorbed much more of national resources in Greece, Spain, Turkey and Yugoslavia (between 3 and 8 per cent of national product in 1957-1958) than in

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[64] In Yugoslavia, taxes assessed on profits and on wages and farm income amount to slightly more than one-half of total public revenue and roughly 14 per cent of national product. For comparison with the industrialized countries of western Europe, see Chapter V, section 2, and especially Table 4.

[65] Because of the structure of the import trade in Turkey, for example, high profits have been made in this sector in times of shortage of imported goods, and the availability of these incomes for expenditure has added to the strains and distortions in the economy that inflation cumulatively generates.

[66] For an appraisal of the possibilities of raising public saving in Greece (with only few changes in legislation) see FAO, *Mediterranean Development Project*, *Greek Country Report*, Chapter IV, p. 24. For a detailed discussion of the merits of direct versus indirect taxation in less-industrialized countries, and the drawbacks in concentrating taxation on any single type of tax, see R. F. Kahn, " The Pace of Development ", in *The Challenge of Development*, The Hebrew University, Jerusalem 1958, p. 176 *et seq.*

[67] This is in line with a similar trend in industrial western European countries. See Chapter V, section 1, and especially Chart 3.

Ireland (1 per cent), but most of the southern European countries have received external financial assistance for their defence programmes.

Monetary Reforms in the Fifties

During the past decade, most countries of the group have experienced temporary intensifications of balance-of-payments difficulties that have required the introduction of special corrective measures; but in Turkey (1958) and Spain (1959) the foreign deficit became critically large and was associated with considerable domestic strains in the economy arising *inter alia* from a substantial increase in investment. Under the circumstances, the twin problems of attempting to sustain economic growth and rising employment while eradicating acute inflationary pressure and restoring balance-of-payments equilibrium would have been virtually incapable of solution without the receipt of considerable external financial assistance. In the event, both Turkey and Spain were granted substantial external credits, the primary purpose of which was to facilitate the adoption of stabilization programmes that might provide a firmer basis for steady growth.

In Greece there had been a comprehensive monetary reform early in the 1950s,[68] but its relevance to the present study and to an assessment of the possible impact of the fairly similar stabilization programmes of Turkey and Spain is limited in that the Greek measures were primarily designed to assist a return to normal after the hyperinflation experienced during almost ten years of enemy occupation or civil strife. Moreover, in contrast to those in Spain and Turkey, the reform did not follow a period of strain caused by a sharp rise in investment and accelerated growth; the recovery of output was in part a return to pre-war levels. An important feature of the Greek contractionary policy was that it paved the way for devaluation — in much the same way as in Spain six years later — by fiscal and credit policies designed to mop up excess demand. Contractionary policies applied in isolation are wasteful in any country as a means of combating excessive domestic cost levels (since the balance of payments is then protected only at the cost of unemployment and unused production capacity); hence, in Greece in 1953, and in Turkey and Spain in 1958 and 1959, the reforms were combined with a reduction of the overvalued exchange rate. One aspect of the monetary reforms in Spain and Turkey was the immediate and possible longer-run increase in import capacity.

Inflationary pressure intensified in Turkey after 1953.[69] Diverse steps were taken to check this process, but proved to have no more than a delaying effect.[70] By mid-1958 exchange reserves were exhausted, a considerable volume of external debt had accumulated, the exchange-control system was ineffective, and the price level had soared. In short, there was a typical excess-demand situation. In conjunction with external assistance, a stabilization programme was introduced in August 1958. The exchange system was overhauled and simplified, foreign credits amounting to $359 million were received, and an agreement was reached between Turkey and its creditors over the consolidation of past debts. The principal export rate was raised from Lira 2.80 per US dollar to Lira 9.00, the import rate was raised to the same level, and the secondary export rates were increased also.[71] Finally, the Turkish Government declared its intention of eliminating inflationary pressures, especially those arising from public-sector operations.[72]

Since August 1958 — especially following the period of readjustment up to the spring of 1959 — the Turkish economic situation has somewhat improved. In the course of the first months of the programme, as credit was tightened and the flow of imports of raw materials and spare parts temporarily ceased, industrial output fell, much excess capacity emerged, and some investment projects were left unfinished; but output subsequently recovered, apart from residential building, textiles, and certain mining industries still affected by low export demand. In part as a result of the higher prices of imports, the rise in prices paid to farmers, and the reduction of subsidies, prices rose by about 25 per cent in the 12 months ending August 1959, but the price of gold fell by more than 50 per cent. The money supply stabilized and credit expanded by only about 6 per cent during the period. The budgetary position has improved and some progress made towards consolidating the economy of the public enterprises. Exports have risen recently, although this mainly represents a recovery from their very low level in 1957-1958; after an initial lag, imports have been allowed to rise as was anticipated for the first phase of the programme.

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[68] See the *Economic Survey of Europe in 1958*, Chapter III, p. 20.

[69] Pressures increased as foreign exchange availabilities set a limit to the rise in imports, which were sharply curtailed from 1956 onward. (See the preceding discussion on factors affecting internal economic conditions.)

[70] These measures included: advance deposits on imports (June 1954); a ceiling on central-bank advances to the treasury (June 1955); increases in interest rates (June 1955 and June 1956); direct control of credit by a Committee for the Regulation of Bank Credit (1955); greater control over the operation of state enterprises by means of an Internal Finance Committee (1957); and a special tax of 40 per cent on imports (April 1958). However, these measures were often circumvented — for example, reserves deposited by the commercial banks with the Credit and Amortization Fund were used by the latter to finance the expenditure of state enterprises.

[71] The system of rates was further simplified in August 1959.

[72] The commitments undertaken included: balancing government expenditure and revenue; removing export subsidies (except on sugar); refraining from inflationary financing of public enterprises. Credit to the private and the public sectors from the Central Bank and the commercial banks was restricted so that the total credit available should not exceed about 5 per cent of the end-June 1958 figure in the twelve months from August 1958. In order to smooth the transition to a higher price level resulting from the exchange adjustment and to avoid a major cut in public investment, drawings on the foreign loans and on counterpart funds were permitted, and proceeds accruing to the Exchange Equalization Fund could be transferred to the budget or to the state enterprises, at least in the initial phase of the programme.

In Spain between 1950 and 1954 output rose, attended by fairly stable prices and a constant ratio of fixed capital formation to national product. Investment has subsequently risen sharply, and since this was not matched by a commensurate rise in either saving by the public sector or the import surplus, the increasing investment resulted, as in Turkey, in a substantial expansion of the flow of money incomes, accompanied by cumulative increases in wages and prices. In an effort to halt inflation, the government attempted to raise the level of public revenues and to reduce the volume of bank advances, while maintaining the rate of public expenditure. Tax reforms were introduced in 1957, and from 1958 onwards it was decided to finance a larger part of the net public-sector deficit from taxes or current revenue.[73] But in spite of these and other corrective measures, such as the ceiling set on rediscounts in mid-1957, selective credit controls, and higher interest rates, the Bank of Spain continued to expand credit by rediscounting the securities sold to commercial banks by public enterprises. By the end of 1958, more stringent measures were taken in preparation for the stabilization programme; as in Turkey, the programme initiated in July 1959 was drawn up in co-operation with the OEEC and the IMF, and has much in common with it, including the abolition of the multiple exchange rate system, provision of foreign credit, and the application of internal disinflationary measures.[74]

Judging from the most recent data, it would appear that the programme has so far had a favourable impact on the balance of payments and the price level, but that by reducing public and private investment it has adversely affected output and employment and earnings — particularly in those industries which were in greatest difficulty prior to implementation of the programme. Imports have been smaller than expected, on account of several factors, such as the existence of a high level of stocks previously accumulated in anticipation of economic difficulties, the general decline of economic activity, and the inevitable delays between the announcement of import quotas and arrivals of imports. It is still too early to say with confidence whether the programme has succeeded in steering the Spanish economy on to the desired path — of maintaining growth, without inflation, but accompanied by the structural changes implied by the exposure of the economy to external influences. In the short term the reduction of stocks, in conjunction with a fall in fixed investment, may further depress demand; at present there is discussion of raising public investment in 1960, above the level first budgeted, in order to prevent further falls in output, employment and incomes.

(c) Raising investment in a growing economy

It has already been stressed that the salient problem in an economy bent on rapid economic development is the avoidance, so far as possible, of inflationary stresses that might eventually disrupt the whole development process by generating cumulative rises in costs and prices and distorting the structure of the price system. Such a degree of inflation complicates, and ultimately thwarts, the achievement of an appropriate allocation of resources; if it is to be prevented, domestic saving (allowing for whatever import surplus can be financed) must be raised in step with the increase in investment. The faster the pace set, the greater is the increase in saving required in the short run. In the longer run, however, the faster the rate of growth of output, the easier the problem of raising saving becomes, while still permitting per capita consumption to rise.

In this context, the countries of southern Europe and Ireland fall into three groups. In Greece and — even more — Yugoslavia in recent years there was relative success in achieving a fast rate of growth together with rising domestic saving and investment and proximate internal balance. In Spain and Turkey, on the other hand, the acceleration of the rate of growth (in the latter country, together with a rapid increase of population) led to both internal and external imbalance, partly because failure to restrain the growth of consumption engendered excess demand. Growth in Portugal and Ireland has been negligible or relatively slow; in the former country, which has large foreign exchange reserves, internal pressure on resources has been minimal; in the latter virtually stagnating national product and declining fixed investment, combined with rising consumer demand, have pushed up imports and weakened the balance of payments.[75]

In Yugoslavia, investment policies have been more vigorous, investment has been a rising share of national product, and the rate of growth of output has generally been higher than in Ireland and Portugal. The achievement of an abrupt increase in the share of investment in national output in Yugoslavia from roughly 10 per cent to 28 per cent [76] — a major undertaking in the initial period (1946-1949) — was made possible by the diversion of resources to investment through heavy taxation and physical controls, and by the receipt of foreign grants and loans. The maintenance of a high rate of investment and growth became less difficult once output, particularly of agricultural products, also increased. Between 1950 and 1954, " suppressed inflation " continued or intensified under the influence of special factors; more recently, however, the combination of better harvests, a substantial increase in the output of consumer goods, as more investment resources were released from heavy industry and past investment matured, and the maintenance of a high level of saving has facilitated a high rate of growth with relative price stability (see Chapter VII). In Spain and Turkey, agricultural output rose sharply in the early fifties, and (particularly in the latter country) helped to offset the pressures generated by increasing investment; but then the growth of the economy subsequently slackened — in part due to crop failure and shortage of foreign exchange (forcing a reduction of imports of compensatory food supplies, as well as of equipment and raw materials for industry). Since fiscal measures were inadequate to contain the rise in disposable money incomes, internal and external pressures intensified, the rate of investment had to be slowed down and contractionary policies were adopted.

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[73] See Chapter V, section 3.

[74] For further details, see footnote 5 and *Economic Bulletin for Europe*, Vol. 11, No. 3, pp. 21-22.

[75] There has also been a tendency towards cost inflation, partly because of the influence of British wage rates on those in Irish industry.

In the remaining countries, investment either rose more slowly, as in Portugal, or even fell, as in Ireland; output rose rather less from pre-war levels than in the other countries; and pressure on prices was generally weaker. There has been a general lack of dynamism in Irish industry, which may be due in part to the free flow of labour and capital between Ireland and the United Kingdom and to the effects of a declining population caused by emigration.[77] Under the new credit arrangements,[78] finance is available on a liberal scale for industrial projects, particularly for export, provided entrepreneurs take it up. In Greece, in contrast, the increase in output between 1950 and 1958 was substantial, but an important part of the increase in gross capital formation has been accounted for by residential building and the transfer of ships to the Greek flag.[79] Since the middle of 1958, however, the pace of industrial growth in Greece has slackened. In Portugal, despite the relatively modest targets, actual expenditure under the first development plan (1952-1958) fell short of the estimates by about 10 per cent, and output increased only moderately. As in Greece, a large part of investment was in residential construction and other long-term assets, and quick-yielding investment in industry and other fields constituted a rather low share of the total.[80]

In nearly all the countries under review, the structure of the credit system has not favoured the channelling of saving to productive uses, and to a varying degree has even tended to impede development. Some of the more important factors responsible for this situation are the marked propensity of the banks to favour finance for imports and other short-term purposes — and, where long-term lending is involved, to favour commercial and real-estate transactions rather than industrial ventures — and the monopoly structure of the banking system. More generally, there is a disposition to cling to established banking conventions in these countries. In recent years, measures have been taken to improve the credit structure and to create specialized institutions (see Chapter VII, section 3).[81]

For some years to come, a more rapid growth of output will entail a higher share of investment in total output, and the programmes of all these countries (except Yugoslavia) have been drawn up on this assumption.[82] Reorganization of banking and credit institutions and, where appropriate, changes in public budgetary policy, can assist further the mobilization of domestic saving and its application to more productive purposes; but an increasing proportion of investment is likely to be undertaken by the public authorities in some countries, and in several direct subsidies may be offered on a fairly large scale to encourage private industry. In these circumstances, and unless transfer payments or public expenditure in other directions are held in check, vigorous tax policies will be needed to syphon off that part of the rise in income which is not met by expanded output of goods and services.

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[76] Although the high level of investment reached in 1949 was maintained in the following years, the rate of increase in output could not be sustained. Post-war recovery had been completed and credits and contractual arrangements with eastern European countries and the Soviet Union for the establishment of new industries were cancelled. Following the break in relations with these countries, an important change in the direction of trade and in economic policies took place: defence expenditure rose from 7 to 19 per cent of national output, and farm output stagnated both because of bad weather and the lower priority accorded agriculture.

[77] There is freedom of movement of labour to Great Britain, but not to Northern Ireland.

[78] See Chapter VII, section 3.

[79] It should, however, be noted that, unlike dwelling construction, the addition to the capital stock through the transfer of ships to the Greek flag does not normally absorb resources from current production (the ships having been either domestically built or acquired in an earlier period).

[80] See Chapter VII, section 4. The second six-year plan (1959-1964) places greater emphasis on industrial and other relatively quick-yielding investment.

[81] The tendency in Portugal and Ireland to relate banking policy almost exclusively to movements in external assets may needlessly impede development. In this connexion, the Irish *Programme for Economic Expansion* (Pr. 4796, Dublin 1958) states (p. 9): " Saving will be encouraged and any tendency for consumer spending to cause an external payments deficit, and thus reduce the availability of capital for development needs, will be checked. Subject to this, financial policy will favour the application of all available resources to productive home purposes, not to the accumulation of further external reserves or investments."

[82] The Preliminary Five-year Programme for Greece assumes a rise in fixed investment from 15-16 per cent of gross national product in recent years to about 20 per cent in 1963, and the Second Development Plan for Portugal from 15 per cent to 19 per cent by 1964.

Experience suggests that if resources are allocated so as to obtain a fairly rapid increase in both agricultural output, by the introduction of technical advances, and industrial output (especially of consumer goods), by fuller utilization of existing capacity, the task of raising the level of investment so as to sustain growth, and at the same time preserve internal and external balance, is not intractable. In an economy where a higher level and better composition of investment promote faster growth of total output, both consumption and investment can in subsequent years rise faster than in an economy where investment is simply maintained at the existing level or has an unsuitable composition.[83] It is not difficult to see why this should be so: on the static view, investment pre-empts part of existing total resources; but on the dynamic view it adds to future resources. Viewed in this way, the larger the rise in investment, the larger the ultimate rise in consumption, and the relation between the two is thus the reverse of that in the short run. As output rises, part of the increase in resources can be devoted to productive investment, in order to sustain growth, even when the initial level of income and saving is low.

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[83] See the *Economic Survey of Europe in 1958*, Chapter V, p. 2.

Appendix A

SUPPLEMENTARY STATISTICS

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Exports of selected European countries and the United St

Millions of cur

Area of destination and period / Exporting country and commodity group	North America		of which: United States		of which: Canada		Latin America		Overseas Sterling Area		of which: British overseas territories		of which: Union of South Africa		of which: Other in Africa		of which: Other in Asia		of which: Other in Oceania		Affiliated overseas territories	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	195
UNITED KINGDOM																						
1. Food, drink and tobacco	126.1	137.3	100.4	112.1	25.7	25.2	20.0	19.9	221.4	223.7	142.9	125.7	8.8	8.8	22.8	20.5	25.1	51.1	21.8	17.6	6.5	7.5
2. Mineral fuels and petroleum products	4.3	2.5	0.9	0.4	3.4	2.1	3.4	5.9	40.7	37.3	17.0	16.8	4.4	3.7	2.5	2.2	12.2	9.9	4.6	4.7	25.0	24.2
3. Metallic ores and base metals	115.2	108.3	53.3	63.3	61.9	45.0	74.8	62.1	334.2	283.0	103.7	87.2	28.4	27.7	19.5	14.3	80.2	68.3	102.4	85.5	3.4	3.5
of which: Iron and steel	*64.1*	*54.6*	*11.9*	*17.8*	*52.2*	*36.8*	*64.8*	*53.8*	*278.4*	*235.8*	*91.9*	*78.8*	*22.4*	*23.1*	*17.3*	*12.6*	*64.6*	*56.5*	*82.2*	*64.8*	*2.7*	*2.9*
4. Oil-seeds, fats and oils	2.6	5.6	1.2	1.1	1.4	4.5	0.7	0.8	7.4	5.5	2.8	2.2	1.1	0.6	0.3	0.3	1.6	0.8	1.6	1.6	0.1	0.1
5. Textile fibres, natural	45.4	38.0	27.1	24.5	18.3	13.5	1.9	1.8	27.8	21.7	2.1	1.2	2.4	1.5	0.2	0.2	21.5	17.1	1.6	1.7	0.2	—
6. Selected construction materials	14.8	17.0	4.9	5.9	9.9	11.1	7.3	5.0	80.4	76.7	39.6	33.9	6.9	6.8	8.2	8.1	11.8	13.6	13.9	14.3	1.5	1.6
7. Other raw materials	6.7	6.9	5.2	5.3	1.5	1.6	0.5	0.6	12.4	12.8	4.5	4.9	1.4	1.5	0.7	0.7	2.3	2.3	3.5	3.4	0.3	0.5
8. Metal manufactures	46.2	44.3	19.2	17.8	27.0	26.5	23.1	18.9	257.0	231.5	81.8	71.1	25.4	22.5	17.7	21.4	81.2	71.7	50.9	44.8	5.7	11.0
9. Power-generating (except electric) machinery	28.9	47.6	11.4	23.2	17.5	24.4	17.1	21.9	141.3	143.2	31.3	32.8	20.6	17.0	7.6	6.2	45.7	52.3	36.1	34.9	3.2	4.0
10. Agricultural machinery	3.0	2.9	1.9	1.9	1.1	1.0	3.1	2.6	15.8	15.0	3.3	3.0	2.5	2.5	1.1	0.9	1.3	1.5	7.6	7.1	1.0	1.0
11. Metal-working, mining, construction and other industrial machinery	87.7	73.9	39.5	28.5	48.2	45.4	60.4	50.0	425.6	416.3	100.9	90.5	57.4	58.3	23.9	24.9	128.4	126.4	115.0	116.2	15.9	17.2
12. Electric machinery	71.6	62.8	35.6	24.8	36.0	38.0	33.5	37.6	345.0	341.2	93.0	84.5	50.3	53.2	23.6	23.3	88.1	88.9	90.0	91.3	5.1	5.4
13. Tractors	13.2	25.9	7.1	18.8	6.1	7.1	14.8	18.0	84.3	67.3	9.6	8.1	17.1	16.4	3.6	3.6	11.7	7.8	42.3	31.4	3.9	4.3
14. Railway vehicles	7.4	5.6	—	0.3	7.4	5.3	10.8	15.2	75.6	92.1	11.4	7.1	20.3	46.4	11.7	14.1	22.1	16.9	10.1	7.6	0.8	1.0
15. Road motor vehicles	164.5	259.2	125.0	195.3	39.5	63.9	41.6	31.9	421.4	416.6	112.7	104.3	75.5	83.2	38.9	32.8	46.3	51.5	148.0	144.8	13.2	12.9
16. Other vehicles	84.9	89.0	23.1	45.3	61.8	43.7	35.0	30.7	147.7	202.1	56.8	57.7	3.3	18.8	6.9	5.4	59.4	86.9	21.3	33.3	5.2	3.1
17. Chemicals	44.6	46.1	20.7	21.9	23.9	24.2	49.2	46.4	346.3	333.0	112.0	103.4	35.9	34.4	24.4	22.3	87.7	80.8	86.3	92.1	16.4	15.3
18. Textile manufactures and clothing	158.4	132.0	79.8	66.5	78.6	65.5	32.5	25.1	426.4	369.4	103.6	85.0	64.6	57.1	38.3	29.8	43.4	34.1	176.5	163.4	20.6	17.4
of which:																						
Textile yarns (including synthetic fibres)	*13.5*	*10.3*	*3.9*	*2.9*	*9.6*	*7.4*	*11.9*	*7.9*	*87.7*	*72.8*	*11.2*	*7.9*	*11.4*	*10.2*	*2.8*	*2.1*	*19.1*	*11.5*	*43.2*	*41.1*	*0.2*	*0.1*
Cotton fabrics	*11.5*	*8.1*	*5.5*	*4.7*	*6.0*	*3.4*	*1.5*	*1.1*	*112.5*	*98.1*	*29.9*	*25.7*	*19.3*	*16.9*	*16.0*	*12.3*	*8.2*	*6.4*	*39.1*	*36.8*	*16.2*	*13.5*
Other fabrics	*108.4*	*91.6*	*55.4*	*45.0*	*53.0*	*46.6*	*17.7*	*15.0*	*191.4*	*165.9*	*48.3*	*39.1*	*28.5*	*24.9*	*16.0*	*12.0*	*14.1*	*13.0*	*84.5*	*76.9*	*4.0*	*3.4*
19. Paper, manufactures of wood and paper (excluding furniture)	8.0	7.6	5.7	5.0	2.3	2.6	4 2	3.0	76.0	75.9	18.9	18.0	10.1	10.7	4.1	3.9	10.7	9.7	32.2	33.6	0.7	0.6
20. All other commodities	202.0	184.4	126.4	108.4	75.6	76.0	26.6	25.1	414.5	395.1	187.7	165.1	47.4	49.3	38.6	34.6	52.4	54.3	88.4	91.8	9.9	9.5
of which: Instruments and watches	*6.2*	*7.3*	*3.7*	*4.4*	*2.5*	*2.9*	*2.5*	*2.4*	*33.5*	*31.6*	*9.2*	*7.6*	*4.2*	*4.0*	*1.9*	*1.6*	*8.2*	*7.5*	*10.0*	*10.9*	*0.8*	*0.9*
TOTAL EXPORTS	1235.5	1 296.9	688.4	770.3	547.1	526.6	460.5	422.5	3 901.2	3 759.4	1 235.6	1 102.5	483.8	520.4	294.6	269.5	833.1	845.9	1 054.1	1 021.1	138.6	140.1
FRANCE																						
1. Food, drink and tobacco	44.3	43.0	37.8	36.2	6.5	6.8	9.1	8.1	20.9	18.1	10.0	8.4	0.5	0.4	1.6	1.2	7.0	6.8	1.8	1.3	254.7	280.5
of which: Fruit and vegetables	*3.9*	*4.5*	*3.6*	*3.9*	*0.3*	*0.6*	*0.4*	*0.3*	*1.2*	*1.0*	*0.5*	*0.3*	*0.2*	*0.2*	*0.1*	*0.1*	*0.2*	*0.3*	*0.2*	*0.1*	*26.4*	*34.7*
Cereals and preparations	*0.2*	*0.3*	*0.2*	*0.2*	—	*0.1*	*0.1*	*0.1*	*7.1*	*5.5*	*1.1*	*1.2*	—	—	*0.3*	*0.1*	*5.7*	*4.2*	—	—	*28.9*	*40.7*
Beverages	*27.7*	*29.2*	*22.3*	*24.0*	*5.4*	*5.2*	*6.9*	*6.5*	*10.2*	*8.7*	*7.3*	*5.0*	*0.3*	*0.2*	*0.5*	*0.5*	*0.7*	*2.1*	*1.4*	*0.9*	*39.2*	*39.8*
2. Mineral fuels and petroleum products	0.2	0.2	0.2	0.2	—	—	—	0.5	11.5	16.0	7.5	11.1	0.2	0.2	3.6	3.8	—	0.8	0.2	0.1	58.7	82.0
3. Metallic ores and base metals	42.8	39.6	38.3	37.0	4.5	2.6	59.0	52.2	57.8	43.7	11.4	5.8	10.3	4.7	1.5	1.2	32.4	28.0	2.2	4.0	90.1	105.6
of which: Iron and steel	*39.2*	*27.2*	*34.7*	*24.7*	*4.5*	*2.5*	*56.4*	*50.3*	*56.7*	*41.5*	*11.2*	*5.3*	*10.2*	*4.3*	*1.5*	*1.2*	*31.9*	*27.2*	*1.9*	*3.5*	*84.6*	*99.2*
Ores and scrap	*1.1*	*2.2*	*1.1*	*2.2*	—	—	—	—	—	*0.1*	—	—	—	—	—	—	—	*0.1*	—	—	*0.1*	—
4. Oil-seeds, fats and oils	1.0	0.7	0.9	0.7	0.1	—	2.2	0.3	0.6	0.6	0.2	0.2	0.1	—	—	—	—	—	0.3	0.4	13.6	17.0
5. Textile fibres, natural	5.5	3.4	5.3	3.3	0.2	0.1	1.6	2.9	0.6	0.1	—	—	0.1	—	—	—	0.4	—	0.1	0.1	1.0	1.1
6. Selected construction materials	6.8	8.2	6.0	6.5	0.8	1.7	3.6	2.8	1.7	2.1	0.6	0.5	0.1	0.2	—	0.1	0.3	0.4	0.7	0.9	25.6	26.5
7. Other raw materials	6.7	7.8	6.4	7.1	0.3	0.7	1.3	1.0	0.5	0.6	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	14.8	15.7
8. Metal manufactures	4.6	3.9	3.8	3.4	0.8	0.5	9.0	14.4	5.8	5.0	1.4	0.9	0.4	0.5	0.3	0.7	3.4	2.5	0.3	0.4	71.9	81.4
9. Power-generating (except electric) machinery	1.5	1.8	0.7	1.3	0.8	0.5	4.9	4.9	5.9	3.9	0.4	0.4	0.1	0.2	—	0.1	5.3	3.1	0.1	0.1	17.9	22.5
10. Agricultural machinery	—	0.2	—	—	—	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	—	—	0.1	—	—	—	3.1	5.2
11. Metal-working, mining, construction and other industrial machinery	6.9	7.1	4.6	5.6	2.3	1.5	25.2	32.4	9.5	9.8	1.4	1.4	1.2	1.4	0.3	0.9	5.1	4.3	1.5	1.8	69.4	84.0
12. Electric machinery	3.2	5.5	2.4	4.7	0.8	0.8	9.1	17.1	6.1	4.6	0.6	0.6	0.2	0.2	0.1	0.1	4.8	3.0	0.4	0.7	64.3	71.0
13. Tractors	—	—	—	—	—	—	4.5	0.3	0.1	—	—	—	—	—	—	—	0.1	—	—	—	7.9	9.4
14. Railway vehicles	—	0.1	—	0.1	—	—	6.2	3.9	4.7	0.2	—	—	—	—	—	—	4.7	0.2	—	—	10.9	13.1
15. Road motor vehicles	41.6	102.9	41.1	94.3	0.5	8.6	10.7	17.2	19.5	23.0	5.6	6.4	7.9	6.9	1.5	2.2	1.1	1.5	3.4	6.0	129.2	155.0
16. Other vehicles	0.4	5.3	0.4	4.6	—	0.7	16.5	6.1	12.2	22.1	0.2	0.3	—	0.2	—	0.1	11.8	21.4	0.2	0.1	17.0	18.2
17. Chemicals	22.9	26.8	19.6	21.8	3.3	5.0	23.1	23.2	20.4	19.9	5.2	4.5	1.7	1.8	0.8	1.2	9.4	8.5	3.3	3.9	102.9	117.1
18. Textile manufactures and clothing	33.5	30.7	29.5	26.9	4.0	3.8	10.1	7.6	17.3	15.2	3.3	2.2	3.4	3.0	0.5	0.4	4.3	3.6	5.8	6.0	193.2	199.5
19. Paper, manufactures of wood and paper (excluding furniture)	2.4	3.3	1.9	2.8	0.5	0.5	1.9	2.3	2.5	2.6	0.4	0.5	1.4	1.2	0.1	0.1	0.3	0.5	0.3	0.3	38.4	38.6
20. All other commodities	53.4	55.9	45.5	47.4	7.9	8.5	16.0	14.9	17.6	18.0	6.0	6.0	3.6	3.4	1.2	1.5	4.3	4.4	2.5	2.7	201.3	244.7
TOTAL EXPORTS	277.7	346.4	244.4	303.9	33.3	42.5	214.1	212.3	215.5	205.7	54.3	49.4	31.4	24.5	11.6	13.7	94.9	89.1	23.3	29.0	1385.9	1588.

Sources and methods: See Appendix B. [a] Excluding the sterling area. [b] Including unallocated exports. [c] Including Formosa. [d] Excluding ships' stores. [e] Including ships' stores. Excluding bunkers. [g] Including bunke

main commodity groups and by area of destination

ars, f.o.b.

Other overseas countries		of which: In Africa		Japan		China		Other in Asia		Total overseas countries[b]		of which: Dollar area		Western Europe		Eastern Europe		Total World		of which: Highly industrialized countries		Semi-industrialized countries		Non-industrialized countries[b]		Group
1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	
34.4	25.1	13.4	9.9	3.1	3.1	3.8	0.4	14.1	11.7	408.4	413.8	140.1	152.1	165.2	144.7	20.6	3.5	594.2	562.0	315.0	288.6	46.1	36.5	233.1	236.9	1.
8.4	9.3	3.0	1.7	1.2	0.3	—	—	4.2	7.3	82.1	79.2	5.6	3.6	345.3	293.7	0.2	0.1	427.6	373.0	351.0	296.6	19.2	19.5	57.4	56.9	2.
45.7	65.2	6.9	8.7	9.5	2.2	2.4	29.4	26.9	24.9	573.3	522.1	151.3	135.5	250.7	232.7	47.7	45.8	871.7	800.6	423.1	389.0	227.5	223.3	221.1	188.3	3.
34.2	*40.6*	*6.2*	*7.6*	*3.4*	*0.6*	*2.2*	*11.9*	*22.4*	*20.5*	*444.2*	*387.7*	*96.7*	*78.0*	*143.8*	*131.4*	*9.6*	*6.2*	*597.6*	*525.3*	*220.9*	*192.8*	*183.4*	*167.8*	*193.3*	*164.7*	
1.3	1.3	0.1	0.4	0.2	0.2	—	—	1.0	0.7	12.1	13.3	3.1	6.2	8.9	4.8	0.8	0.1	21.8	18.2	12.5	10.7	3.5	3.0	5.8	4.5	4.
38.3	40.4	0.6	4.7	18.6	12.1	11.8	18.6	7.3	5.0	113.6	101.9	46.8	39.3	121.5	92.3	12.9	9.6	248.0	203.8	198.4	152.0	37.2	39.2	12.4	12.6	5.
9.2	8.8	1.2	1.1	1.1	0.6	—	—	6.9	7.1	113.2	109.1	19.5	20.5	20.4	21.9	0.1	0.1	133.7	131.1	36.4	39.6	29.8	29.2	67.5	62.3	6.
1.9	2.1	0.3	0.3	0.5	0.5	0.1	0.4	1.0	0.9	21.8	23.1	7.1	7.5	36.1	34.8	0.5	0.1	58.4	58.0	43.8	42.3	7.0	6.8	7.6	8.9	7.
25.1	24.7	5.0	4.8	0.6	0.5	0.5	1.6	19.0	17.8	357.1	330.4	64.4	59.5	111.7	91.3	0.4	0.5	469.2	422.2	158.9	136.6	135.2	118.3	175.1	167.3	8.
29.2	36.0	6.0	8.9	1.2	0.9	0.1	0.9	21.9	25.3	219.7	252.7	38.8	60.3	124.8	126.0	1.5	1.3	346.0	380.0	156.4	175.8	99.0	106.5	90.6	97.7	9.
3.0	3.4	0.7	0.9	0.4	0.3	—	0.2	1.9	2.0	25.9	24.9	4.5	4.4	21.3	21.8	0.7	0.1	47.9	46.8	25.4	25.1	12.8	12.3	9.7	9.4	10.
67.4	75.2	8.7	12.7	10.1	10.1	1.3	4.7	47.3	47.7	657.0	632.7	131.9	106.4	296.5	289.1	19.9	24.2	973.4	946.0	414.2	397.3	310.2	304.0	249.0	244.7	11.
34.2	39.7	5.7	9.6	2.3	1.4	1.5	2.9	24.7	25.8	489.4	486.7	92.4	84.6	137.3	134.6	9.5	5.1	636.2	626.4	220.7	203.9	224.0	223.5	191.5	199.0	12.
8.4	12.8	2.6	4.1	0.5	0.6	0.3	2.2	5.0	5.9	124.6	128.3	21.8	36.3	78.9	86.9	0.2	0.1	203.7	215.3	92.8	113.5	76.7	66.9	34.2	34.9	13.
3.2	5.9	1.2	5.3	1.0	0.1	—	—	1.0	0.5	97.8	119.8	7.5	5.9	19.1	9.6	0.4	0.3	117.3	129.7	27.9	15.6	61.4	80.1	28.0	34.0	14.
39.0	43.3	10.1	13.7	2.6	1.2	0.1	0.4	26.2	28.0	680.0	764.1	183.1	285.2	182.0	174.9	1.7	1.6	863.7	940.6	350.8	436.9	272.7	264.7	240.2	239.0	15.
70.7	43.5	44.9	25.5	1.2	1.0	0.5	—	24.1	17.0	343.5	368.4	158.9	133.0	134.7	141.3	10.2	6.0	488.4	515.7	231.0	237.3	82.5	130.5	174.9	147.9	16.
58.0	55.2	7.3	9.0	6.4	5.4	7.8	8.4	36.5	32.4	514.5	496.2	65.5	68.2	226.2	229.5	8.0	11.1	748.7	736.8	285.2	292.1	214.9	207.5	248.6	237.2	17.
47.2	37.7	6.2	5.2	13.0	9.9	1.3	1.9	26.7	20.7	685.3	581.6	180.0	151.2	257.4	224.6	7.8	5.3	950.5	811.5	436.6	371.8	271.6	240.1	242.3	199.6	18.
12.2	*7.3*	*0.8*	*0.9*	*3.3*	*1.2*	*1.0*	*1.0*	*7.1*	*4.2*	*125.5*	*98.4*	*21.3*	*23.9*	*77.6*	*62.4*	*4.4*	*2.9*	*207.5*	*163.7*	*98.8*	*76.8*	*71.3*	*61.6*	*37.4*	*25.3*	
6.1	*3.9*	*2.2*	*1.0*	*0.3*	*0.1*	—	—	*3.6*	*2.8*	*147.8*	*124.7*	*12.5*	*8.8*	*22.4*	*20.2*	*0.2*	*0.1*	*170.4*	*145.0*	*34.4*	*28.5*	*61.7*	*55.6*	*74.3*	*60.9*	
26.6	*24.5*	*2.5*	*2.5*	*9.0*	*8.3*	*0.3*	*1.0*	*14.8*	*12.7*	*348.1*	*300.4*	*120.4*	*103.4*	*126.1*	*114.5*	*3.0*	*2.1*	*477.2*	*417.0*	*246.5*	*216.5*	*122.7*	*108.6*	*108.0*	*91.9*	
3.5	4.4	0.8	0.9	0.1	0.1	0.1	0.7	2.5	2.7	92.4	91.5	9.2	8.8	24.4	25.0	0.3	0.2	117.1	116.7	32.8	32.9	51.5	52.2	32.8	31.6	19.
43.7	41.8	9.2	8.4	4.6	3.8	2.3	2.1	27.6	27.5	696.7	655.9	217.6	199.9	279.6	279.8	16.1	12.4	992.4	948.1	502.3	480.4	178.0	175.8	312.1	291.9	20.
5.6	*5.5*	*0.8*	*0.7*	*0.9*	*0.7*	*1.6*	*1.2*	*2.3*	*2.9*	*48.6*	*47.7*	*7.6*	—	*23.9*	*23.5*	*1.2*	*1.0*	*73.7*	*72.2*	*32.2*	*32.5*	*22.7*	*21.4*	*18.8*	*18.3*	
571.8	575.8	133.9	135.8	78.2	54.3	33.9	74.8	325.8	310.9	6 308.4	6 195.7	1 549.1	1 568.4	2 842.0	2 659.3	159.5	127.5	9 309.9	8 982.5	4 315.2	4 138.0	2 360.8	2 339.9	2 633.9	2 504.6	Total exports
57.6	48.5	46.1	36.4	1.4	1.5	[c] —	0.1	10.1	10.5	386.6[d]	398.3[d]	51.9	50.1	351.4	266.2	16.8	1 7	757.5[e]	668.5[e]	413.9	312.4	7.2	4.4	333.7[d]	349.4[d]	1.
5.2	*4.7*	*4.3*	*3.7*	—	—	—	—	*0.9*	*1.0*	*37.1*[d]	*45.3*[d]	*4.1*	*4.7*	*43.3*	*35.3*	*0.2*	*0.1*	*81.3*[e]	*81.4*[e]	*47.4*	*39.9*	*0.6*	*.03*	*32.6*[d]	*40.5*[d]	
10.4	*11.5*	*6.6*	*6.6*	—	—	—	*0.1*	*3.8*	*4.8*	*46.8*[d]	*58.1*[d]	*0.3*	*0.3*	*138.1*	*74.1*	*12.5*	*0.1*	*197.5*[e]	*132.3*[e]	*150.8*	*74.5*	*2.2*	*0.7*	*44.4*[d]	*57.1*[d]	
8.1	*6.4*	*4.2*	*3.1*	*0.6*	*0.6*	—	—	*3.3*	*2.7*	*92.2*[d]	*90.7*[d]	*33.9*	*35.1*	*99.1*	*83.8*	*2.7*	*1.0*	*194.7*[e]	*176.1*[e]	*130.1*	*114.6*	*3.4*	*2.7*	*60.5*[d]	*58.2*[d]	
37.7	41.3	35 4	40.0	—	—	—	—	2.3	1.3	108.1[f]	140.0[f]	0.2	0.3	173.0	169.4	—	—	293.6[g]	320.9[g]	173.2	169.6	0.4	0.4	107.5[f]	139.4[f]	2.
84.4	104.2	26.7	29.6	5.8	0.1	5.0	33.7	46.9	40.8	334.1	345.3	80.3	60.0	469.1	426.1	43.9	60.1	847.1	831.5	561.6	525.9	67.9	92.9	217.6	212.7	3.
80.2	*94.5*	*24.5*	*27.5*	*5.7*	*0.1*	*5.0*	*29.6*	*45.0*	*37 3*	*317.2*	*312.8*	*76.1*	*47.4*	*350.2*	*319.1*	*43.8*	*58.6*	*711.2*	*690.5*	*438.9*	*405.0*	*65.3*	*86.0*	*207.0*	*199.5*	
0.1	*0.1*	—	*0.1*	—	—	—	—	*0.1*	—	*1.4*	*2.4*	*1.1*	*2.2*	*100.6*	*86.0*	—	—	*102.0*	*88.4*	*101.7*	*88.2*	—	—	*0.3*	*0.2*	
1.5	1.4	1.1	1.1	0.1	0.1	—	—	0.3	0.2	18.9	20.1	1.2	0.8	8.6	6.4	1.4	1.9	28.9	28.4	11.1	9.1	2.3	0.5	15.5	18.8	4.
5.2	4.2	1.0	0.9	0.7	0 3	2.3	2.3	1.2	0.7	13.9	11.7	6.9	6.1	150.0	94.8	7.3	7.0	171.2	113.5	163.5	105.5	3.0	3.1	4.7	4.9	5.
6.2	6.3	2.7	2.5	0.2	0.2	0.1	—	3.2	3.6	43.9	45.9	8.2	9.5	21.7	20.4	0.4	0.8	66.0	67.1	29.1	29.6	3.3	3.0	33.6	34.5	6.
8.3	9.2	6.4	7.9	0.3	0.3	—	—	1.6	1.0	31.7	34.3	6.9	8.0	107.3	93.9	2.3	1.8	141.3	130.0	116.6	103.8	1.4	0.9	23.3	25.3	7.
24.8	23.6	12.2	10.6	0.2	0.1	0.1	—	12.3	12.9	116.1	128.4	10.1	11.1	31.8	31.5	0.2	1.1	148.1	161.0	36.8	36.6	6.2	9.6	105 1	114.8	8.
8.8	7.5	2.6	2.6	—	—	0.3	0.1	5.9	4.8	39.0	40.6	2.3	2.8	14.0	20.6	0.7	0.5	53.7	61.7	16.2	22.9	9.6	7.4	27.9	31.4	9.
0.6	1.3	0.5	1.0	—	—	—	—	0.1	0.3	4.1	.7.1	—	0.3	4.5	4.1	0.1	—	8.7	11.2	4.6	4.3	0.2	0.2	3.9	6.7	10.
30.8	31.4	10.2	12.5	2.5	3.2	3.3	0 5	14.8	15.2	141.9	164.8	16.8	21.0	103.1	104.6	5.1	11.9	250.1	281.3	117.6	126.8	26.7	31.7	105.8	122.8	11.
22.3	25.3	12.2	10.7	0.2	0.3	0.2	0.1	9.7	14.2	105.0	123.5	7.8	12.9	50.3	64.5	7.8	12.3	163.1	200.3	61.5	82.6	7.5	14.4	94.1	103.3	12.
2.1	1.6	0.3	0.9	—	—	1.4	0.6	0.4	0.1	14.7	11.3	0.1	—	2.0	3.2	0.1	0.3	16.8	14.8	2.1	3.5	5.9	0.9	8.8	10.4	13.
0.9	3.3	0.7	1.8	—	—	—	—	0.2	1.5	22.8	20.6	0.9	0.9	14.1	12.1	0.2	0.2	37.1	32.9	14.3	12.4	9.0	3.3	13.8	17.2	14.
29.8	33.3	16.4	19.7	0.7	0.1	1.8	2.8	10.9	10.7	230.8	331.4	46.9	113.2	95.0	111.1	4.4	3.8	330.2	446.3	141.7	217.9	19.0	23.4	169.5	205.0	15.
32.9	7.9	24.7	2.8	0.7	—	0 5	—	7.0	5.1	79.1	59.7	34.5	9.8	48.4	56.4	0.4	0.2	127.9	116.3	49.9	61.9	14.9	24.5	63.1	29.9	16.
69.8	68.9	29.9	35.4	7.9	8.7	4.2	2.0	27.8	22.8	239.1	256.4	32.3	35.2	162.0	160.7	11.6	11.6	412.7	428.7	204.4	207.8	32.6	29.4	175.7	191.5	17.
67.0	61.7	37.2	36.4	0.2	0.4	0.5	1.4	29.1	23.5	321.2	314.8	39.0	34.9	208.1	173.5	7.5	17.3	536.8	505.6	249.3	221.9	16.7	16.2	270.8	267.5	18.
17.1	16.3	11.0	12.5	—	—	0.2	0.5	5.9	3.3	62.5	63.2	3.5	5 0	32.6	33.6	1.0	1.9	96.1	98.7	36.0	38.8	2.9	3.0	57.2	56.9	19.
87.5	80.0	62.7	58.3	1.2	0.9	1.9	0.3	21.7	20.5	375.8	413.6	62.1	64.6	177.7	178.1	7.0	10.9	560.5	602.6	239.3	245.8	18.1	16.1	303.1	340.7	20.
595.3	577.2	340.0	323.6	22.1	16.2	21.8	44.4	211.4	193.0	2 689.3	2 931.0	411.9	446.5	2 224.7	2 031.2	118.2	145.3	5 047.4	5 121.3	2 642.7	2 539.1	254.8	285.3	2 134.7	2 283.1	Total exports

TAB

Exports of selected European countries and the United Stat

Millions of curre

Area of destination and period / Exporting country and commodity group	North America		of which:				Latin America		Overseas Sterling Area		of which:										Affiliated overseas territories [a]	
			United States		Canada						British overseas territories		Union of South Africa		Other in Africa		Other in Asia		Other in Oceania			
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
WESTERN GERMANY																						
1. Food, drink and tobacco	20.1	20.9	18.5	19.2	1.6	1.7	3.8	3.5	10.4	12.5	5.5	5.0	0.6	0.7	2.6	2.3	0.9	3.8	0.8	0.7	2.0	1.8
2. Mineral fuels and petroleum products	4.1	3.1	4.1	3.1	—	—	1.1	2.6	1.1	1.0	0.2	0.3	0.2	0.2	—	—	0.3	0.3	0.4	0.2	0.4	0.9
3. Metallic ores and base metals	82.0	64.1	75.2	59.1	6.8	5.0	120.1	94.6	83.4	67.6	18.0	11.0	7.6	3.6	1.6	1.6	54.6	49.9	1.6	1.5	5.8	7.5
of which : Iron and steel	*53.3*	*33.5*	*47.1*	*29.2*	*6.2*	*4.3*	*104.5*	*79.0*	*77.3*	*63.6*	*16.2*	*9.9*	*6.9*	*3.2*	*1.6*	*1.5*	*51.3*	*48.0*	*1.3*	*1.0*	*5.3*	*7.2*
4. Oil-seeds, fats and oils	0.9	1.1	0.9	1.1	—	—	0.2	0.4	0.7	0.4	—	0.1	0.1	0.1	0.1	—	0.5	0.2	—	—	0.9	0.5
5. Textile fibres, natural	1.9	2.0	1.8	1.9	0.1	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Selected construction materials	11.8	11.8	9.3	8.3	2.5	3.5	9.1	8.4	17.6	25.9	3.9	3.3	0.6	0.6	0.9	0.9	11.5	19.9	0.7	1.2	3.8	3.0
7. Other raw materials	7.0	6.8	6.9	6.7	0.1	0.1	1.6	1.4	1.8	3.0	0.9	1.2	0.1	0.1	0.1	0.1	0.5	1.3	0.2	0.3	0.3	0.3
8. Metal manufactures	45.6	46.5	37.9	38.6	7.7	7.9	53.5	52.1	42.7	42:1	13.6	11.4	6.5	5.8	3.5	3.2	14.0	16.5	5.1	5.2	8.1	7.0
9. Power-generating (except electric) machinery	3.8	5.6	3.2	5.1	0.6	0.5	21.2	27.2	18.1	22.0	2.0	1.1	1.3	1.6	0.3	0.2	14.0	18.5	0.5	0.6	2.6	2.4
10. Agricultural machinery	1.1	0.9	0.6	0.7	0.5	0.2	2.8	1.8	2.6	1.9	0.5	0.4	0.8	0.6	0.1	0.1	0.4	0.2	0.8	0.6	0.4	0.2
11. Metal-working, mining, construction and other industrial machinery	85.4	96.2	73.0	80.8	12.4	15.4	117.5	117.6	154.9	195.8	11.1	11.3	16.7	24.3	2.9	3.4	108.1	136.3	16.1	20.5	12.6	13.2
12. Electric machinery	34.6	29.7	29.7	23.5	4.9	6.2	70.1	62.9	63.0	80.1	10.9	8.9	9.5	15.2	2.1	1.9	34.4	45.5	6.1	8.6	7.0	7.1
13. Tractors	0.4	0.3	0.3	0.2	0.1	0.1	13.7	22.5	4.4	3.7	0.2	0.2	2.0	1.9	—	0.1	1.5	0.9	0.7	0.6	0.9	0.9
14. Railway vehicles	0.4	0.4	0.3	0.1	0.1	0.3	7.3	7.3	15.4	33.0	1.1	2.6	3.1	14.7	0.4	—	10.5	15.7	0.3	—	0.6	1.4
15. Road motor vehicles	165.8	224.2	140.6	193.6	25.2	30.6	73.1	99.3	105.4	123.2	21.6	26.6	34.0	42.8	5.4	8.0	28.9	25.7	15.5	20.1	12.3	14.1
16. Other vehicles	8.1	10.4	7.6	9.9	0.5	0.5	16.2	15.4	22.7	11.6	2.2	2.7	0.6	0.7	0.4	0.5	18.2	7.5	1.3	0.2	1.7	1.5
17. Chemicals	50.8	48.7	43.9	41.6	6.9	7.1	98.5	101.2	83.5	74.0	15.5	12.5	9.7	10.9	3.8	4.5	38.5	27.2	16.0	18.9	4.7	5.4
18. Textile manufactures and clothing	35.7	34.2	29.4	28.2	6.3	6.0	13.0	11.9	58.1	50.1	13.9	11.6	15.0	11.6	3.0	2.9	13.6	10.5	12.6	13.5	13.0	11.5
of which :																						
Textile yarns (including synthetic fibres)	*10.9*	*11.4*	*10.1*	*10.7*	*0.8*	*0.7*	*4.4*	*3.5*	*17.0*	*14.5*	*1.5*	*1.4*	*6.8*	*4.7*	*0.2*	*0.3*	*7.1*	*6.3*	*1.4*	*1.8*	*0.4*	*0.4*
Cotton fabrics	*3.2*	*2.9*	*2.1*	*1.7*	*1.1*	*1.2*	*1.1*	*0.8*	*11.5*	*10.0*	*1.7*	*1.0*	*2.4*	*2.0*	*0.5*	*0.3*	*2.0*	*0.8*	*4.9*	*5.9*	*5.6*	*4.7*
Other fabrics	*13.3*	*10.0*	*10.2*	*7.5*	*3.1*	*2.5*	*5.4*	*5.8*	*24.4*	*20.1*	*8.2*	*6.7*	*5.2*	*4.1*	*1.8*	*1.6*	*3.8*	*2.7*	*5.4*	*5.0*	*6.2*	*5.8*
19. Paper, manufactures of wood and paper (excluding furniture)	6.6	7.2	6.0	6.5	0.6	0.7	7.0	6.4	5.6	5.2	1.2	1.1	1.5	1.5	0.3	0.3	1.4	1.0	1.2	1.3	0.5	0.6
20. All other commodities	129.3	133.7	111.7	115.3	17.6	18.4	68.6	67.0	88.8	84.1	34.3	29.7	14.3	14.7	5.8	5.7	16.6	17.7	17.8	16.3	11.6	10.5
of which : Instruments and watches	*52.1*	*49.3*	*44.2*	*42.2*	*7.9*	*7.1*	*22.7*	*20.5*	*32.3*	*27.0*	*12.1*	*8.2*	*4.4*	*4.3*	*1.4*	*1.2*	*6.7*	*6.0*	*7.7*	*7.3*	*2.8*	*2.5*
TOTAL EXPORTS	695.4	747.8	600.9	643.5	94.5	104.3	698.4	703.5	780.2	837.2	156.6	141.0	124.2	151.6	33.3	35.7	368.4	398.6	97.7	110.3	89.2	89.8
ITALY																						
1. Food, drink and tobacco	41.7	44.8	35.0	38.2	6.7	6.6	8.6	9.2	24.6	19.6	13.6	10.5	1.5	0.5	5.5	3.9	2.2	3.2	1.8	1.5	6.0	4.1
of which : Cereals and preparations	*1.5*	*1.1*	*1.0*	*1.0*	*0.5*	*0.1*	*0.1*	*0.2*	*9.4*	*7.9*	*5.8*	*3.8*	*1.2*	*0.1*	*2.2*	*1.9*	*0.2*	*2.1*	—	—	*1.1*	*0.5*
Fruit	*5.4*	*4.6*	*4.1*	*3.2*	*1.3*	*1.4*	*1.4*	*0.8*	*2.5*	*1.9*	*1.1*	*1.1*	*0.1*	—	*0.3*	*0.3*	*0.3*	*0.1*	*0.7*	*0.4*	*0.5*	*0.4*
Vegetables	*11.1*	*12.6*	*8.5*	*9.9*	*2.6*	*2.7*	*1.7*	*2.7*	*6.8*	*6.8*	*4.4*	*4.5*	*0.2*	*0.2*	*0.8*	*0.9*	*0.9*	*0.9*	*0.5*	*0.3*	*3.2*	*2.0*
2. Mineral fuels and petroleum products	—	2.1	—	2.1	—	—	—	0.1	11.7	15.5	6.8	7.9	—	0.1	4.6	5.0	0.3	2.5	—	—	13.5	14.5
3. Metallic ores and base metals	14.5	9.3	13.4	8.1	1.1	1.2	34.9	34.7	29.2	21.1	6.8	3.7	0.3	0.4	1.2	1.2	20.7	15.2	0.2	0.6	0.5	0.4
of which : Iron and steel	*9.5*	*2.5*	*8.4*	*1.6*	*1.1*	*0.9*	*33.1*	*32.5*	*26.7*	*19.6*	*6.4*	*3.5*	*0.2*	—	*1.0*	*1.1*	*18.9*	*14.4*	*0.2*	*0.6*	*0.5*	*0.4*
4. Oil-seeds, fats and oils	5.4	5.9	5.0	5.4	0.4	0.5	0.9	0.4	1.0	1.0	0.1	0.1	—	—	—	—	0.1	—	0.8	0.9	0.1	—
5. Textile fibres, natural	2.4	1.0	2.4	1.0	—	—	0.2	0.3	0.3	0.1	—	—	—	—	0.2	—	—	0.1	0.1	—	—	—
6. Selected construction materials	6.0	6.7	5.6	6.2	0.4	0.5	1.7	2.1	1.5	2.0	0.6	0.6	0.1	0.1	0.4	0.8	0.3	0.4	0.1	0.1	0.2	0.1
7. Other raw materials	8.2	9.0	7.4	8.3	0.8	0.7	2.9	2.6	2.3	2.6	0.7	1.0	0.2	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.2
8. Metal manufactures	17.5	12.5	15.0	10.6	2.5	1.9	10.5	18.0	17.3	14.7	1.7	1.5	2.3	2.7	3.9	3.9	7.0	5.4	2.4	1.2	2.2	1.1
9. Power-generating (except electric) machinery	0.9	1.3	0.8	1.2	0.1	0.1	24.7	21.9	2.4	2.0	0.8	0.3	0.2	0.3	0.2	0.2	1.0	1.0	0.2	0.2	0.5	0.2
10. Agricultural machinery	—	—	—	—	—	—	0.5	0.3	0.1	0.1	—	—	—	—	0.1	0.1	—	—	—	—	0.1	—
11. Metal-working, mining, construction and other industrial machinery	23:0	22.2	19.2	18.6	3.8	3.6	45.4	53.0	16.1	21.6	3.4	2.7	3.8	3.5	1.8	2.3	5.3	10.9	1.8	2.2	1.9	2.5
12. Electric machinery	2.1	3.0	1.9	2.5	0.2	0.5	12.4	13.7	5.6	7.0	0.6	0.6	0.7	0.9	0.9	0.5	3.0	4.3	0.4	0.7	0.3	1.1
13. Tractors	—	—	—	—	—	—	2.9	1.8	0.4	0.6	0.1	—	0.1	0.2	—	0.1	—	—	0.2	0.3	0.3	0.2
14. Railway vehicles	—	—	—	—	—	—	0.4	3.7	5.4	4.5	—	—	—	0.3	0.1	—	5.1	3.8	0.2	0.4	—	0.9
15. Road motor vehicles	20.2	40.3	20.1	38.4	0.1	1.9	30.6	28.7	16.0	18.0	3.6	3.3	4.7	5.3	1.4	1.8	4.8	4.9	1.5	2.7	1.0	1.7
16. Other vehicles	7.1	3.6	7.1	3.6	—	—	9.9	30.2	0.9	1.1	0.3	0.5	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.4
17. Chemicals	13.8	13.5	12.1	11.9	1.7	1.6	14.0	14.0	17.3	18.2	3.8	3.7	1.7	1.1	1.0	1.2	10.0	11.3	0.8	0.9	0.7	0.8
18. Textile manufactures and clothing	49.9	46.5	42.1	40.4	7.8	6.1	14.4	14.0	54.1	48.2	16.6	16.1	11.9	9.2	3.9	4.3	12.8	10.9	8.9	7.7	9.4	7.3
of which :																						
Textile yarns (including synthetic fibres)	*3.2*	*2.8*	*3.0*	*2.6*	*0.2*	*0.2*	*4.9*	*5.9*	*15.3*	*11.4*	*1.4*	*1.2*	*2.6*	*1.5*	*0.4*	*0.7*	*8.7*	*7.0*	*2.2*	*1.0*	*0.6*	*0.6*
Cotton fabrics	*4.8*	*5.6*	*4.4*	*5.0*	*0.4*	*0.6*	*1.7*	*1.6*	*5.4*	*5.1*	*0.9*	*0.6*	*1.0*	*0.9*	*0.5*	*0.6*	*0.6*	*0.4*	*2.4*	*2.6*	*0.8*	*0.6*
Other fabrics	*28.8*	*23.5*	*22.9*	*19.6*	*5.9*	*3.9*	*5.9*	*4.6*	*28.2*	*26.5*	*12.8*	*13.1*	*6.9*	*5.5*	*1.8*	*1.6*	*3.2*	*3.2*	*3.5*	*3.1*	*6.9*	*5.3*
19. Paper, manufactures of wood and paper (excluding furniture)	2.8	3.1	2.6	2.9	0.2	0.2	1.5	1.0	3.4	2.7	1.1	0.9	0.2	0.2	0.6	0.5	1.3	0.9	0.2	0.2	0.3	0.2
20. All other commodities	44.3	51.7	40.8	46.9	3.5	4.8	14.3	20.4	17.9	20.0	5.2	5.5	2.9	3.8	2.1	2.4	4.7	4.7	3.0	3.6	3.4	2.6
TOTAL EXPORTS	259.8	276.5	230.5	246.3	29.3	30.2	230.7	270.1	227.5	220.6	65.8	58.9	30.7	28.9	28.6	28.9	79.2	80.1	23.2	23.8	40.9	38.3
BELGIUM-LUXEMBOURG																						
1. Food, drink and tobacco	3.2	3.0	3.0	2.7	0.2	0.3	0.7	1.4	5.8	5.7	3.3	3.4	0.1	0.1	1.5	1.3	0.7	0.7	0.2	0.2	12.0	11.7
2. Mineral fuels and petroleum products	—	—	—	—	—	—	0.1	0.2	1.1	0.7	0.2	0.2	0.3	0.1	0.2	0.1	0.3	0.3	0.1	—	1.3	0.6
3. Metallic ores and base metals	98.4	112.0	80.0	101.5	18.4	10.5	114.3	108.2	87.1	72.4	24.7	16.5	12.8	8.2	4.0	2.2	43.8	42.8	1.8	2.7	39.7	24.9
of which : Iron and steel	*66.9*	*78.2*	*50.8*	*69.9*	*16.1*	*8.3*	*104.2*	*96.7*	*83.5*	*68.7*	*23.0*	*15.5*	*12.5*	*7.9*	*3.7*	*2.0*	*42.6*	*40.7*	*1.7*	*2.6*	*37.3*	*23.2*
4. Oil-seeds, fats and oils	0.2	0.3	0.2	0.3	—	—	0.5	1.0	1.4	0.6	0.3	0.3	0.1	—	0.1	—	0.9	0.3	—	—	1.0	0.5
5. Textile fibres, natural	4.7	3.4	4.3	3.1	0.4	0.3	1.4	1.7	0.8	0.7	—	—	0.1	0.1	—	—	0.3	0.3	0.4	0.3	0.3	0.2
6. Selected construction materials	22.4	23.8	18.9	18.7	3.5	5.1	7.1	6.5	10.1	10.3	3.8	2.5	0.4	0.5	0.7	0.8	1.3	1.6	3.9	4.9	6.4	5.5
7. Other raw materials	3.8	3.1	3.3	2.7	0.5	0.4	0.2	0.3	0.8	0.7	0.3	0.2	0.1	0.1	—	—	0.3	0.3	0.1	0.1	0.3	0.2
8. Metal manufactures	27.4	29.2	26.8	28.5	0.6	0.7	13.6	9.8	10.4	12.3	3.0	3.4	2.7	3.3	0.5	0.5	3.5	4.3	0.7	0.8	17.0	14.7
9. Power-generating (except electric) machinery	0.2	0.2	0.2	0.2	—	—	—	0.5	0.2	0.1	—	—	—	—	—	—	0.2	0.1	—	—	2.6	3.5
10. Agricultural machinery	—	—	—	—	—	—	0.3	0.2	0.2	0.2	—	—	0.1	0.1	—	—	0.1	0.1	--	—	0.2	0.1
11. Metal-working, mining, construction and other industrial machinery	6.8	3.5	6.4	3.0	0.4	0.5	5.5	5.0	4.4	4.1	0.6	0.3	1.1	1.2	0.3	0.2	2.1	2.1	0.3	0.3	13.5	13.7
12. Electric machinery	1.9	2.2	1.8	2.0	0.1	0.2	8.2	10.1	3.3	7.4	0.3	0.5	0.4	0.4	—	—	1.6	5.2	1.0	1.3	13.9	13.3
13. Tractors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.1	—
14. Railway vehicles	—	—	—	—	—	—	2.4	2.5	13.1	12.7	1.4	1.4	2.7	3.9	0.8	0.6	8.2	6.8	—	—	8.4	10.5
15. Road motor vehicles	1.2	0.1	1.2	0.1	—	—	0.6	1.5	1.6	1.1	0.8	0.4	0.6	0.5	—	0.1	0.2	0.1	—	—	2.6	4.6
16. Other vehicles	0.2	3.8	0.2	3.8	—	—	0.1	0.1	0.1	0.7	—	0.1	—	—	0.1	—	—	0.6	—	—	4.3	2.6
17. Chemicals	12.8	13.0	11.2	11.3	1.6	1.7	11.0	12.9	18.7	16.6	5.1	2.4	2.6	3.0	1.1	1.8	6.6	5.3	3.3	4.1	10.9	9.6
18. Textile manufactures and clothing	47.6	39.8	39.3	32.7	8.3	7.1	4.3	2.7	16.5	14.2	1.3	1.1	6.5	5.1	0.3	0.3	1.7	1.1	6.7	6.6	17.0	14.2
19. Paper, manufactures of wood and paper (excluding furniture)	0.7	0.8	0.6	0.7	0.1	0.1	0.3	0.3	1.1	1.0	0.3	0.2	0.1	0.2	—	—	0.3	0.3	0.4	0.3	3.5	2.2
20. All other commodities	76.2	83.6	68.9	76.0	7.3	7.6	7.5	8.3	20.0	19.5	12.8	12.0	1.0	1.2	0.3	0.2	4.3	4.4	1.6	1.7	13.0	12.1
TOTAL EXPORTS	307.7	321.8	266.3	287.3	41.4	34.5	178.1	173.2	196.7	181.0	58.2	44.9	31.7	28.0	9.9	8.1	76.4	76.7	20.5	23.3	168.0	144.7

Sources and methods : See Appendix B. [a] Excluding the sterling area. [b] Including unallocated exports. [c] Excluding ships' stores. [d] Including ships' stores. [e] Excluding bunkers. [f] Including bunkers.

ain commodity groups and by area of destination

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Other verseas untries	of which:								Total overseas countries[b]		of which		Western Europe		Eastern Europe		Total World		of which:						Group
	In Africa		Japan		China		Other in Asia				Dollar Area								Highly industrialized countries		Semi-industrialized countries		Non-industrialized countries[b]		
1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	
10.0	4.3	2.7	3.6	1.3	—	0.1	7.5	5.9	51.7[c]	48.7[c]	22.3	23.0	120.6	135.0	4.1	1.8	180.0[d]	188.5[d]	148.4	159.0	3.4	3.2	24.6[c]	23.3[c]	1.
2.7	2.6	1.9	0.1	0.1	0.2	0.2	1.0	0.5	10.6[e]	10.3[e]	4.6	3.5	560.9	529.2	0.4	0.2	620.4[f]	580.4[f]	565.5	532.6	1.6	3.1	4.8[e]	4.0[e]	2.
153.3	6.8	8.3	36.8	3.0	5.9	91.1	69.2	50.9	410.0	387.1	158.3	104.7	662.8	520.0	98.9	103.2	1171.7	1010.3	880.5	690.3	110.1	190.2	181.1	129.8	3.
129.3	*5.4*	*7.6*	*22.0*	*0.8*	*5.8*	*75.9*	*61.6*	*45.0*	*335.2*	*312.6*	*124.9*	*70.0*	*518.9*	*401.6*	*88.5*	*83.8*	*942.6*	*798.0*	*682.7*	*519.7*	*95.8*	*161.3*	*164.1*	*117.0*	
3.9	2.6	3.1	—	—	—	—	1.4	0.8	6.7	6.3	1.0	1.4	22.1	19.4	2.3	3.0	31.1	28.7	25.3	23.5	—	0.2	5.8	5.0	4.
0.4	0.1	0.1	0.3	0.3	—	—	—	—	2.4	2.4	1.9	2.1	40.6	26.7	2.2	1.9	45.2	31.0	45.0	30.9	—	—	0.2	0.1	5.
8.4	1.4	1.2	0.3	0.3	—	0.2	8.0	6.7	52.0	57.5	19.3	17.4	79.2	78.0	0.7	1.1	131.9	136.6	92.0	91.2	13.5	23.1	26.4	22.3	6.
2.5	0.2	0.4	0.3	0.2	0.3	1.0	0.8	0.9	12.3	14.0	7.8	7.7	89.8	83.3	1.7	2.0	103.8	99.3	98.8	92.3	1.9	3.2	3.1	3.8	7.
30.7	5.6	4.8	2.2	2.4	0.3	2.0	29.1	21.5	187.1	178.4	80.9	83.9	202.5	199.9	5.1	5.0	394.7	383.3	255.4	253.8	40.7	40.7	98.6	88.8	8.
22.2	4.5	4.5	0.8	1.0	0.1	0.1	12.2	16.6	63.3	79.4	11.8	15.9	124.4	122.6	3.6	6.4	191.3	208.4	132.6	135.6	27.5	34.7	31.2	38.1	9.
1.8	0.4	0.4	—	0.1	—	—	0.7	1.3	8.0	6.6	1.8	1.5	54.8	54.5	0.2	0.2	63.0	61.3	56.1	55.7	3.9	2.7	3.0	2.9	10.
144.5	20.9	21.7	33.3	37.8	4.6	13.7	62.0	71.3	491.2	567.3	144.9	157.2	891.3	896.1	38.2	73.4	1420.7	1536.8	1048.2	1103.5	207.8	258.5	164.7	174.8	11.
59.4	10.8	11.8	2.5	2.4	1.4	3.2	44.6	42.0	234.5	239.5	69.7	66.3	395.6	414.1	11.9	14.3	642.0	667.9	444.6	460.5	84.4	95.8	113.0	111.6	12.
5.7	0.7	0.9	0.1	0.2	—	0.1	2.6	4.5	22.8	33.1	1.8	2.3	49.3	45.8	0.5	0.4	72.6	79.3	50.3	46.7	16.6	24.5	5.7	8.1	13.
23.2	4.4	2.2	—	—	—	—	4.4	21.0	32.5	65.3	5.0	5.9	28.4	40.0	1.1	1.2	62.0	106.5	29.9	41.6	15.1	31.1	17.0	33.8	14.
56.5	10.5	14.3	1.8	3.0	0.6	0.7	28.3	38.5	397.9	517.3	191.2	260.9	413.7	476.5	2.7	2.1	814.3	995.9	584.0	705.8	120.4	144.9	109.9	145.2	15.
33.0	53.5	15.8	—	0.1	0.2	—	26.9	17.1	129.4	71.9	76.2	39.4	157.9	225.6	7.2	3.1	294.5	300.6	173.2	239.2	19.7	9.8	101.6	51.6	16.
129.2	20.1	18.8	24.2	25.0	28.3	38.0	39.9	47.4	350.0	358.5	109.9	109.2	520.5	550.8	32.1	31.1	902.6	940.4	627.6	655.6	134.2	144.1	140.8	140.7	17.
29.9	7.8	8.6	0.4	0.3	1.7	3.3	18.4	17.7	148.1	137.6	43.8	41.7	288.1	264.5	10.7	12.0	446.9	414.1	334.9	311.0	40.9	38.7	71.1	64.4	18.
10.8	*1.0*	*1.0*	*0.1*	*0.1*	*1.6*	*3.1*	*5.9*	*6.6*	*41.3*	*40.6*	*13.5*	*13.1*	*67.0*	*58.4*	*9.1*	*10.2*	*117.4*	*109.2*	*87.1*	*80.1*	*17.4*	*16.5*	*12.9*	*12.6*	
2.4	*0.8*	*0.8*	—	—	—	—	*2.0*	*1.6*	*24.2*	*20.8*	*4.0*	*3.6*	*49.8*	*49.9*	*0.4*	*0.2*	*74.4*	*70.9*	*53.4*	*53.0*	*7.7*	*8.1*	*13.3*	*9.8*	
13.5	*5.1*	*5.9*	*0.2*	*0.2*	*0.1*	*0.2*	*8.8*	*7.2*	*63.6*	*55.2*	*16.9*	*14.1*	*110.6*	*102.9*	*1.1*	*1.5*	*175.3*	*159.6*	*125.2*	*114.6*	*13.6*	*11.9*	*36.5*	*33.1*	
3.7	0.7	0.7	0.4	0.1	0.1	0.8	2.2	2.1	23.1	23.1	9.9	10.5	59.3	60.4	2.2	1.7	84.6	85.2	68.5	69.4	7.4	7.4	8.7	8.4	19.
46.9	9.7	9.2	4.6	5.6	3.9	7.8	27.7	24.3	344.2[c]	342.2[c]	172.4	178.5	542.1	593.2	10.6	13.2	901.4[d]	952.8[d]	686.6	745.7	72.9	74.2	137.4[c]	128.7[c]	20.
14.1	*2.8*	*2.5*	*2.7*	*2.3*	*2.9*	*2.0*	*8.0*	*7.3*	*126.3*	*113.4*	*64.6*	*617.*	*121.4*	*126.2*	*3.1*	*3.8*	*250.8*	*243.4*	*179.3*	*181.6*	*31.9*	*26.7*	*39.6*	*35.1*	
767.9	167.6	131.4	111.7	83.2	47.6	162.3	386.9	391.0	2977.8	3146.5	1134.5	1133.0	5303.9	5335.6	236.4	277.3	8574.7	8807.3	6347.4	6443.9	922.0	1130.1	1248.7	1185.4	TOTAL EXPORTS
45.8	27.5	28.1	0.1	4.5	—	—	18.1	13.2	126.6[c]	123.5[c]	48.7	53.2	441.4	369.1	32.0	12.5	604.0[d]	510.8[d]	515.2	430.9	5.1	2.9	79.7[c]	71.3[c]	1.
38.8	*20.3*	*23.8*	—	*4.2*	—	—	*12.3*	*10.8*	*44.7*[c]	*48.6*[c]	*1.6*	*1.2*	*39.2*	*21.0*	*0.1*	—	*84.0*[d]	*70.0*[d]	*40.8*	*26.3*	*1.2*	*0.1*	*42.0*[c]	*43.2*[c]	
1.8	*2.2*	*1.4*	—	—	—	—	*0.5*	*0.4*	*12.5*[c]	*9.5*[c]	*5.8*	*5.0*	*232.5*	*198.3*	*12.7*	*11.0*	*258.0*[d]	*219.1*[d]	*250.6*	*213.9*	*2.1*	*1.0*	*5.0*[c]	*3.9*[c]	
2.0	*1.1*	*0.8*	—	*0.1*	—	—	*2.2*	*1.1*	*26.1*[c]	*26.2*[c]	*12.6*	*15.2*	*79.3*	*83.1*	*0.1*	*0.2*	*105.5*[d]	*109.8*[d]	*90.5*	*96.0*	*0.9*	*0.7*	*14.1*[c]	*12.8*[c]	
13.0	9.3	9.0	—	—	—	—	4.9	4.0	39.4[e]	45.2[e]	0.6	2.2	125.8	112.4	—	—	185.0[f]	180.1[f]	125.8	114.5	—	0.2	39.4[e]	42.9[e]	2.
27.9	3.6	4.1	0.4	—	1.9	14.1	11.4	9.7	96.9	97.0	34.3	22.4	59.0	67.6	13.4	18.4	169.3	183.0	87.3	95.3	43.3	52.0	38.7	35.7	3.
23.9	*3.4*	*3.9*	*0.4*	—	*1.9*	*12.8*	*9.3*	*7.2*	*84.8*	*82.3*	*28.0*	*14.2*	*41.1*	*47.5*	*12.1*	*18.2*	*138.0*	*148.0*	*63.1*	*68.2*	*40.9*	*49.2*	*34.0*	*30.6*	
0.6	0.1	0.4	—	—	—	—	0.1	0.2	7.6	8.0	5.8	6.2	1.8	2.0	—	—	9.4	10.0	7.2	7.9	1.1	1.0	1.1	1.1	4.
0.2	—	—	—	0.2	—	—	—	—	2.9	1.7	2.4	1.1	17.7	10.8	0.8	0.7	21.4	13.2	20.9	12.7	0.1	0.3	0.4	0.2	5.
1.8	0.4	0.8	—	—	—	—	0.7	1.0	10.5	12.8	7.4	9.1	4.8	4.3	—	0.1	15.3	17.2	10.8	11.1	0.6	0.4	3.9	5.7	6.
3.9	0.7	1.0	0.9	0.2	—	—	1.8	2.7	17.2	18.6	10.4	10.8	44.7	42.5	1.5	2.6	63.4	63.7	55.3	54.3	1.5	2.2	6.6	7.2	7.
9.9	2.9	4.2	—	0.1	—	0.3	4.8	5.3	55.5	57.1	26.1	25.9	20.2	20.6	0.4	0.4	76.1	78.1	38.1	33.6	11.7	12.0	26.3	32.5	8.
14.0	2.1	9.7	—	—	—	—	1.3	4.3	31.9	39.6	3.3	7.2	21.8	22.1	1.5	3.6	55.2	65.3	24.2	27.0	24.6	19.0	6.4	19.3	9.
0.3	0.1	0.1	—	—	—	—	0.1	0.2	0.9	0.8	0.1	0.3	1.5	3.0	0.1	0.1	2.5	3.9	1.6	3.1	0.4	—	0.5	0.8	10.
18.2	5.3	5.1	2.4	1.7	0.3	2.7	8.2	8.7	102.6	117.8	51.0	54.7	98.5	96.8	8.8	12.1	209.9	226.7	132.7	132.8	36.0	44.9	41.2	49.0	11.
7.1	2.1	2.5	0.1	—	—	0.1	2.8	4.5	25.4	32.2	9.6	13.4	24.4	27.6	0.9	2.2	50.7	62.0	27.5	32.8	9.5	9.2	13.7	20.0	12.
1.7	0.1	0.8	—	—	—	0.1	0.4	0.8	4.1	4.4	0.3	0.3	10.5	6.3	—	—	14.6	10.7	10.5	6.3	2.8	2.2	1.3	2.2	13.
0.2	0.1	0.1	—	—	—	—	0.1	0.1	6.0	9.4	0.4	3.7	2.2	2.6	—	—	8.2	12.0	2.2	2.6	5.3	5.1	0.7	4.3	14.
11.6	6.7	4.7	0.2	0.1	—	—	7.6	6.8	82.3	100.3	33.5	50.3	87.7	104.2	4.9	3.9	174.9	208.4	113.0	148.5	29.9	32.4	32.0	27.5	15.
26.0	5.7	7.1	—	—	—	—	0.7	18.9	24.4	61.3	20.9	39.3	36.1	30.0	0.1	0.2	60.6	91.5	43.3	33.8	1.1	1.4	16.2	56.3	16.
30.3	7.2	6.4	1.3	0.5	9.9	12.1	6.5	11.3	71.6	77.8	20.1	20.0	77.5	83.1	6.7	7.7	155.8	168.6	99.3	104.8	30.2	31.7	26.3	32.1	17.
37.9	9.5	9.3	0.3	0.1	2.4	2.9	23.7	25.6	163.7	154.2	60.9	57.1	226.0	210.0	25.4	19.7	415.1	383.9	301.6	276.3	34.7	31.2	78.8	76.4	18.
18.6	*2.0*	*2.0*	—	*0.1*	*2.4*	*2.9*	*12.9*	*13.6*	*41.3*	*39.4*	*6.7*	*6.8*	*44.3*	*39.5*	*22.0*	*16.8*	*107.6*	*95.7*	*69.5*	*59.2*	*16.9*	*15.2*	*21.2*	*21.3*	
3.6	*1.5*	*2.0*	—	—	—	—	*1.3*	*1.6*	*15.5*	*16.5*	*6.0*	*6.7*	*20.5*	*21.8*	—	*0.1*	*36.0*	*38.4*	*25.3*	*27.5*	*2.6*	*3.6*	*8.1*	*7.3*	
13.5	*5.0*	*4.5*	*0.3*	—	—	—	*8.5*	*9.0*	*83.6*	*73.7*	*33.7*	*27.3*	*121.0*	*102.3*	*3.1*	*2.4*	*207.7*	*178.4*	*153.2*	*128.2*	*11.8*	*9.7*	*42.7*	*40.5*	
3.6	1.6	1.9	—	—	—	0.1	1.9	1.6	11.5	10.6	3.6	3.8	11.3	10.3	1.1	1.2	23.9	22.1	15.2	14.6	1.8	0.9	6.9	6.6	19.
11.4	4.6	4.7	0.8	0.6	0.2	0.3	7.3	5.8	93.7	106.1	55.7	68.1	130.1	117.4	1.5	2.5	225.3	226.0	176.7	172.2	12.9	14.9	35.7	38.9	20.
265.4	89.6	100.0	6.5	8.0	14.7	32.7	102.4	124.7	974.7	1078.4	395.1	449.1	1443.0	1342.7	99.1	87.9	2540.6	2537.2	1808.4	1715.1	252.6	263.9	455.8	530.0	TOTAL EXPORTS
9.2	6.5	5.4	0.1	—	—	—	3.6	3.8	31.9	31.0	3.9	3.6	89.2	121.8	0.5	0.5	121.6	153.3	93.0	125.3	0.5	0.6	28.1	27.4	1.
0.7	0.3	0.2	—	—	—	—	0.1	0.5	2.9[e]	2.2[e]	—	—	203.4	188.7	—	—	226.9[f]	212.5	203.4	188.7	0.6	0.4	2.3[e]	1.8[e]	2.
68.1	5.2	6.4	12.6	1.8	0.6	27.7	44.9	32.2	402.8	385.6	148.6	155.1	636.1	554.5	21.4	23.7	1060.3	963.8	768.5	692.0	104.1	135.0	187.7	136.8	3.
62.8	*4.4*	*4.9*	*10.1*	*0.3*	*0.5*	*27.2*	*41.5*	*30.4*	*348.4*	*329.8*	*111.5*	*117.7*	*457.5*	*394.6*	*17.2*	*17.3*	*823.1*	*741.7*	*551.7*	*490.4*	*95.7*	*124.8*	*175.7*	*126.5*	
0.9	0.4	0.5	—	—	—	—	0.3	0.4	3.8	3.3	0.6	1.3	13.9	10.7	1.7	0.7	19.4	14.7	15.8	11.7	0.1	—	3.5	3.0	4.
9.0	2.8	2.3	3.2	3.8	2.0	2.0	0.5	0.9	15.7	15.0	5.4	4.1	113.8	74.4	10.5	8.0	140.0	97.4	132.2	89.6	3.5	3.8	4.3	4.0	5.
3.3	1.0	0.9	0.4	0.1	—	—	2.9	2.3	50.5	49.4	28.6	29.2	56.4	55.2	0.1	0.3	107.0	104.9	79.3	79.4	6.6	7.5	21.1	18.0	6.
0.5	0.2	0.2	0.2	0.1	—	—	0.3	0.2	5.8	4.8	3.9	3.3	49.3	46.4	1.2	1.4	56.3	52.6	54.5	51.0	0.5	0.4	1.3	1.2	7.
9.0	1.3	1.7	0.1	0.1	0.1	1.2	9.2	6.0	79.2	75.0	34.9	35.5	47.2	46.1	2.2	1.7	128.6	122.8	76.9	77.1	11.2	9.2	40.5	36.5	8.
0.6	0.3	0.2	—	—	—	—	0.1	0.4	3.5	4.9	0.2	0.4	27.9	34.5	1.5	0.2	32.9	39.6	29.6	34.9	0.2	0.4	3.1	4.3	9.
0.1	—	—	—	—	—	—	0.1	0.1	0.8	0.6	—	—	5.6	7.0	—	—	6.4	7.6	5.6	7.0	0.2	0.2	0.6	0.4	10.
4.1	0.8	1.5	0.7	0.5	0.4	0.5	1.7	1.6	33.9	30.4	10.7	6.2	68.9	71.1	1.4	1.7	104.2	103.2	77.8	76.8	6.7	7.2	19.7	19.2	11.
7.8	1.4	1.8	0.1	0.1	3.0	1.1	2.6	4.8	34.4	40.8	6.3	9.1	65.3	70.1	2.4	3.0	102.1	113.9	69.7	75.4	10.1	8.1	22.3	30.4	12.
—	—	—	—	—	—	—	—	—	0.1	0.1	—	—	0.1	0.2	—	—	0.2	0.3	0.1	0.2	—	—	0.1	0.1	13.
2.7	0.7	1.9	—	—	—	—	0.7	0.8	25.3	28.4	2.2	2.6	8.6	6.6	0.1	—	34.0	35.0	8.7	6.6	11.1	10.5	14.2	17.9	14.
1.7	0.4	0.1	—	—	0.4	0.6	0.2	1.0	7.0	9.0	1.6	0.5	54.7	60.1	0.6	0.1	62.3	69.2	56.5	60.3	1.4	2.6	4.4	6.3	15.
10.5	4.8	10.4	—	—	—	—	0.1	0.1	9.6	17.7	5.0	14.3	23.0	36.6	7.8	3.8	40.4	58.1	31.0	44.2	—	0.7	9.4	13.2	16.
46.3	5.4	8.1	7.3	10.9	14.4	16.6	6.0	10.7	86.5	98.4	18.6	18.6	127.0	127.8	5.7	5.2	219.2	231.4	152.8	156.9	28.6	33.1	37.8	41.4	17.
6.2	2.4	2.1	—	—	0.2	0.7	5.0	3.4	93.0	77.1	50.6	41.9	291.0	256.3	5.2	7.2	389.2	340.6	343.8	303.3	15.4	13.2	30.0	24.1	18.
0.8	0.2	0.2	—	—	—	—	0.6	0.6	6.6	5.1	1.0	1.0	30.4	30.7	0.7	1.0	37.7	36.8	31.8	32.5	0.8	0.7	5.1	3.6	19.
10.1	2.3	2.7	1.0	0.8	1.1	1.8	4.5	4.8	125.6	133.6	81.6	90.2	154.3	157.4	2.8	3.8	282.7	294.8	234.3	245.6	9.8	10.4	38.6	38.8	20.
191.6	36.4	46.6	25.7	18.2	22.2	52.2	83.4	74.6	1018.9	1012.4	403.7	416.9	2066.1	1956.2	65.8	62.3	3171.4	3052.5	2465.3	2358.5	211.4	244.0	474.1	428.4	TOTAL EXPORTS

TAB

Exports of selected European countries and the United Sta

Millions of curr

Exporting country and commodity group / Area of destination and period	North America 1957	North America 1958	of which: United States 1957	of which: United States 1958	of which: Canada 1957	of which: Canada 1958	Latin America 1957	Latin America 1958	Overseas Sterling Area 1957	Overseas Sterling Area 1958	of which: British overseas territories 1957	of which: British overseas territories 1958	of which: Union of South Africa 1957	of which: Union of South Africa 1958	of which: Other in Africa 1957	of which: Other in Africa 1958	of which: Other in Asia 1957	of which: Other in Asia 1958	of which: Other in Oceania 1957	of which: Other in Oceania 1958	Affiliated overseas territories [a] 1957	Affiliated overseas territories [a] 1958
NETHERLANDS																						
1. Food, drink and tobacco	48.9	63.2	44.4	57.3	4.5	5.9	24.7	23.5	69.6	70.4	43.7	43.3	1.8	1.9	9.2	8.5	11.4	12.5	3.5	4.2	27.9	29.2
of which : Live animals and meat	*28.0*	*35.7*	*27.9*	*35.6*	*0.1*	*0.1*	*1.9*	*1.1*	*3.5*	*3.6*	*2.6*	*2.7*	*0.5*	*0.5*	*0.3*	*0.3*	*0.1*	*0.1*	—	—	*3.1*	*3.1*
Dairy products	*2.4*	*2.1*	*1.7*	*1.5*	*0.7*	*0.6*	*13.6*	*12.8*	*31.9*	*32.2*	*22.4*	*21.9*	*0.2*	*0.4*	*3.0*	*2.8*	*6.3*	*7.1*	—	—	*11.9*	*12.8*
Fruit and vegetables	*2.8*	*3.0*	*1.8*	*2.0*	*1.0*	*1.0*	*1.3*	*1.2*	*3.7*	*3.6*	*1.9*	*1.8*	*0.2*	*0.2*	*0.3*	*0.3*	*1.0*	*1.0*	*0.3*	*0.3*	*2.1*	*2.4*
2. Mineral fuels and petroleum products	0.5	0.6	0.5	0.6	—	—	1.5	2.1	13.3	9.2	9.4	6.0	0.5	0.3	0.3	0.3	2.7	2.2	0.4	0.4	16.9	30.1
3. Metallic ores and base metals [e]	22.1	20.3	21.1	18.5	1.0	1.8	12.9	12.0	6.9	6.1	1.9	1.3	1.8	1.7	0.1	—	2.0	2.0	1.1	1.1	3.8	2.0
4. Oil-seeds, fats and oils	1.5	3.8	1.2	3.2	0.3	0.6	0.8	1.4	1.3	2.2	0.5	1.1	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.3	2.2	1.7
5. Textile fibres, natural	4.7	3.6	4.5	3.5	0.2	0.1	1.4	0.4	0.2	0.4	0.1	0.2	0.1	—	—	0.2	—	—	—	—	0.2	0.4
6. Selected construction materials	0.4	0.3	0.2	0.1	0.2	0.2	1.0	1.3	1.8	1.7	0.4	0.5	0.1	0.1	—	—	0.5	0.3	0.8	0.8	1.1	1.1
7. Other raw materials	16.6	16.9	13.8	13.9	2.8	3.0	1.4	1.1	1.0	1.2	0.2	0.2	0.4	0.4	—	0.1	0.1	0.1	0.3	0.4	0.3	0.3
8. Metal manufactures [e]	8.0	10.0	7.3	9.1	0.7	0.9	7.1	8.5	5.0	5.5	2.7	3.0	0.8	0.7	0.3	0.3	0.8	1.1	0.4	0.4	3.9	3.1
9. Power-generating (except electric) machinery	1.7	2.7	1.2	1.8	0.5	0.9	1.4	1.7	2.5	1.9	0.8	0.8	0.1	0.1	—	—	1.6	0.9	—	0.1	1.8	1.5
10. Agricultural machinery	—	—	—	—	—	—	0.1	—	0.3	0.3	—	—	0.1	0.1	—	—	—	—	0.2	0.2	—	—
11. Metal-working, mining, construction and other industrial machinery	6.6	7.0	5.6	6.4	1.0	0.6	9.3	8.8	11.0	12.1	3.5	2.6	2.1	2.3	0.2	0.5	3.2	4.2	2.0	2.5	5.5	5.7
12. Electric machinery	11.0	14.8	8.5	11.5	2.5	3.3	18.8	20.0	20.7	21.9	6.0	6.2	3.3	2.1	1.3	1.0	5.9	6.6	4.2	6.0	4.9	5.2
13. Tractors	—	—	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Railway vehicles	—	—	—	—	—	—	—	—	0.2	—	—	—	0.2	—	—	—	—	—	—	—	—	—
15. Road motor vehicles	0.1	0.6	0.1	0.6	—	—	0.7	0.5	0.9	1.0	0.3	0.6	0.3	0.1	—	0.1	0.3	0.2	—	—	1.0	0.8
16. Other vehicles	5.4	5.4	5.1	5.0	0.3	0.4	7.4	15.3	6.5	9.5	4.2	3.6	0.2	0.1	0.1	0.3	0.9	4.7	1.1	0.8	3.1	3.8
17. Chemicals	18.4	18.9	17.0	17.5	1.4	1.4	21.7	23.6	28.6	28.8	9.0	11.0	2.5	3.1	4.9	4.9	8.9	6.1	3.3	3.7	4.7	5.4
18. Textile manufactures and clothing [e]	11.6	12.6	9.7	10.6	1.9	2.0	2.1	1.6	21.3	20.3	4.0	4.0	7.5	7.2	1.1	1.2	3.7	3.5	5.0	4.4	11.8	13.3
19. Paper, manufactures of wood and paper (excluding furniture)	1.1	1.5	1.0	1.4	0.1	0.1	1.6	2.0	5.5	5.3	2.4	2.2	0.5	0.5	0.2	0.4	1.4	0.9	1.0	1.3	2.0	1.8
20. All other commodities	24.0	24.3	20.1	20.3	3.9	4.0	8.6	8.8	35.5	37.8	11.0	13.7	8.4	8.1	10.1	9.3	3.0	2.8	3.0	3.9	6.7	7.0
TOTAL EXPORTS	182.6	206.5	161.3	181.3	21.3	25.2	122.6	132.6	232.1	235.6	100.1	100.3	30.8	29.0	28.0	27.3	46.6	48.5	26.6	30.5	97.8	112.4
DENMARK																						
1. Food, drink and tobacco	52.4	71.7	49.4	68.4	3.0	3.3	20.2	21.4	19.1	21.1	12.1	8.7	0.5	0.7	1 2	1.4	4.2	9.1	1.1	1.2	6.7	6.3
of which : Live animals and meat	*27.6*	*42.4*	*27.1*	*41.3*	*0.5*	*0.1*	*5.1*	*5.9*	*4.5*	*5.1*	*3.6*	*3.4*	—	—	*0.6*	*0.7*	*0.3*	*1.0*	—	—	*1.6*	*1.8*
Dairy products	*16.1*	*18.8*	*14.3*	*17.4*	*1.8*	*1.4*	*10.2*	*11.0*	*9.3*	*10.7*	*5.4*	*3.0*	*0.1*	*0.2*	*0.2*	*0.2*	*3.5*	*7.1*	*0.1*	*0.2*	*4.3*	*3.6*
Fruit and vegetables	*0.3*	*0.3*	*0.3*	*0.3*	—	—	*1.4*	*2.4*	*1.3*	*1.2*	*1.0*	*1.0*	*0.1*	—	*0.1*	*0.1*	*0.1*	*0.1*	—	—	*0.2*	*0.3*
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Metallic ores and base metals	11.0	8.0	11.0	8.0	—	—	2.0	3.3	0.1	0.1	0.1	0.1	—	—	—	—	—	—	—	—	—	—
4. Oil-seeds, fats and oils	1.0	1.1	0.9	1.1	0.1	—	0.5	0.6	0.8	0.4	0.6	0.3	—	—	—	—	0.2	0.1	—	—	0.2	0.1
5. Textile fibres, natural	0.3	0.2	0.3	0.2	—	—	0.2	0.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Selected construction materials	0.7	1.0	0.6	0.8	0.1	0.2	1.3	0.3	0.6	0.9	0.2	0.3	0.1	0.1	—	—	0.2	0.4	0.1	0.1	0.3	0 3
7. Other raw materials	12.0	12.8	10.3	11.5	1.7	1.3	0.4	0.3	0.8	0.6	0.1	—	—	0.1	0.1	—	0.2	0.3	0.4	0.2	—	—
8. Metal manufactures	1.4	1.9	1.3	1.7	0.1	0.2	2.3	1.9	0.9	0.5	0.2	0.2	0.1	0.1	—	—	0.4	0.1	0.2	0.1	0.1	0.1
9. Power-generating (except electric) machinery	0.5	0.2	0.3	0.2	0.2	—	1.8	1.6	0.8	1.7	0.3	0.7	0.2	0.2	—	0.1	0.2	0.7	0.1	—	0.2	0.1
10. Agricultural machinery	—	—	—	—	—	—	0.5	0.4	0.3	0.4	0.1	0.1	—	0.1	—	—	0.2	0.2	—	—	—	0.1
11. Metal-working, mining, construction and other industrial machinery	4.2	3.6	3.3	3.1	0.9	0.5	9.7	10.4	4.9	4.9	0.5	0.5	2.0	2.3	0.1	0.1	1.6	1.2	0.7	0.8	0.3	0.8
12. Electric machinery	1.1	1.6	0.8	1.2	0.3	0.4	3.4	3.0	2.7	2.4	0.2	0.4	0.3	0.4	0.1	—	1.4	0.8	0.7	0.8	0.6	0.6
13. Tractors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Railway vehicles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Road motor vehicles	0.4	1.2	0.4	1.2	—	—	0.1	0.1	0.1	0.1	—	—	—	—	—	—	0.1	0.1	—	—	—	—
16. Other vehicles	1.1	0.9	1.0	0.8	0.1	0.1	4.6	1.4	2.5	0.7	2.5	0.1	—	—	—	—	—	0.6	—	—	—	0.1
17. Chemicals	3.4	2.8	3.2	2.5	0.2	0.3	4.4	5.1	3.9	3.6	1.3	1.0	0.5	0.5	—	0.2	1.5	1.6	0.6	0.3	0.3	0.3
18. Textile manufactures and clothing	3.7	4.9	3.2	4.2	0.5	0.7	1.9	0.9	0.3	0.3	0.1	0.1	0.1	0.1	—	—	0.1	0.1	—	—	—	—
19. Paper, manufactures of wood and paper (excluding furniture)	1.4	1.4	1.2	1.2	0.2	0.2	0.2	0.2	0.6	0.7	0.4	0.3	0.1	0.1	—	0.1	—	0.1	0.1	0.1	—	—
20. All other commodities	10.7	11.2	9.8	10.0	0.9	1.2	1.5	1.6	1.2	1.5	0.4	0.5	0.3	0.4	0.1	—	0.2	0.4	0.2	0.2	0.3	0.2
TOTAL EXPORTS	105.3	124.5	97.0	116.1	8.3	8.4	55.0	52.7	39.6	39.9	19.1	13.3	4.2	5.1	1.6	1.9	10.5	15.8	4.2	3.8	9.0	9.0
NORWAY																						
1. Food, drink and tobacco	13.0	13.9	11.7	12.4	1.3	1.5	14.3	9.4	18.7	18.3	15.1	15.1	1.4	1.0	0.2	0.3	0.2	0.1	1.8	1.8	2.9	3.3
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Metallic ores and base metals	29.7	35.1	29.2	34.6	0.5	0.5	2.8	6.7	10.1	6.7	0.3	0.1	2.0	2.1	—	—	5.4	3.5	2.4	1.0	0.1	0.2
of which : Iron and steel	*4.1*	*2.0*	*3.6*	*1.5*	*0.5*	*0.5*	*2.2*	*4.4*	*4.6*	*3.5*	*0.1*	*0.1*	*0.1*	*0.6*	—	—	*2.6*	*2.0*	*1.8*	*0.8*	*0.1*	*0.2*
Ores and scrap	*0.2*	*0.3*	*0.2*	*0.3*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Oil-seeds, fats and oils	1.3	1.1	1.2	1.1	0.1	—	0.5	0.5	0.5	0.5	0.3	0.3	—	0.1	0.1	—	0.1	0.1	—	—	—	0.2
5. Textile fibres, natural	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Selected construction materials	0.5	0.8	0.5	0.8	—	—	0.2	—	—	0.1	—	—	—	—	—	—	—	0.1	—	—	0.1	—
7. Other raw materials	4.5	9.1	4.4	8.9	0.1	0.2	2.1	2.2	2.3	3.1	0.1	—	0.4	0.5	—	—	0.1	0.4	1.7	2.2	0.2	0.1
8. Metal manufactures	1.3	0.5	1.2	0.4	0.1	0.1	0.3	0.2	0.7	1.3	0.1	0.1	0.1	0.1	—	—	0.3	1.0	0.2	0.1	—	0.1
9. Power-generating (except electric) machinery	—	—	—	—	—	—	0.1	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Agricultural machinery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. Metal-working, mining, construction and other industrial machinery	0.5	0.4	0.3	0.3	0.2	0.1	0.2	0.2	0.7	0.8	0.1	0.1	0.2	0.2	—	—	0.2	0.1	0.2	0.4	—	0.1
12. Electric machinery	0.1	0.4	0.1	0.3	—	0.1	2.5	3.0	1.8	0.9	—	—	0.1	0.6	—	—	1.7	0.3	—	—	0.9	0.2
13. Tractors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Railway vehicles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Road motor vehicles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16. Other vehicles	0.2	0.2	0.2	0.2	—	—	17.9	4.9	1.6	3.1	0.7	—	—	3.0	—	—	0.9	—	—	0.1	—	—
17. Chemicals	3.0	2.8	3.0	2.8	—	—	1.4	1.6	2.0	1.9	0.2	0.1	0.4	0.4	0.1	—	0.6	0.9	0.7	0.5	0.1	0.3
18. Textile manufactures and clothing	0.6	0.6	0.5	0.5	0.1	0.1	1.1	1.1	1.1	0.8	0.1	0.1	0.2	0.1	—	—	0.3	—	0.5	0.6	—	0.1
19. Paper, manufactures of wood and paper (excluding furniture)	0.5	0.9	0.5	0.9	—	—	10.9	9.6	18.5	14.5	5.3	3.1	4.2	3.3	0.4	0.5	4.5	4.0	4.1	3.6	1.1	0.9
20. All other commodities	3.5	4.1	3.1	3.6	0.4	0.5	0.4	0.4	0.9	0.7	0.2	0.2	0.2	0.1	—	—	0.2	0.1	0.3	0.3	0.3	0.2
TOTAL EXPORTS	58.7	69.9	55.9	66.8	2.8	3.1	54.7	39.9	58.9	52.7	22.5	19.2	9.2	11.5	0.8	0.8	14.5	10.6	11.9	10.6	5.7	5.7

Sources and methods : See Appendix B. [a] Excluding the sterling area. [b] Including unallocated exports. [c] Excluding bunkers. [d] Including bunkers. [e] Data not fully comparable with those for other countries. For further detail *ontinued)*

nain commodity groups and by area of destination

rs, f.o.b.

Other overseas territories		of which:								Total overseas countries [b]		of which:		Western Europe		Eastern Europe		Total World		of which:						Group
		In Africa		Japan		China		Other in Asia				Dollar Area								Highly industrialized countries		Semi-industrialized countries		Non-industrialized countries [b]		
57	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	
3.9	51.5	13.2	10.3	5.2	6.4	—	0.3	40.5	34.5	230.0	237.8	76.4	86.7	632.4	652.9	8.9	4.9	871.3	895.6	695.4	727.4	9.4	8.3	166.5	159.9	1.
1.5	*1.9*	*0.5*	*0.6*	—	—	—	*0.1*	*1.0*	*1.2*	*38.1*	*45.4*	*29.8*	*36.7*	*145.0*	*139.4*	*0.5*	*0.4*	*183.6*	*185.2*	*173.5*	*175.5*	*0.9*	*0.7*	*9.2*	*9.0*	
5.5	*26.1*	*5.9*	*4.4*	*0.4*	*0.3*	—	—	*29.2*	*21.4*	*95.3*	*86.2*	*23.0*	*19.0*	*201.9*	*191.0*	*0.4*	—	*297.6*	*277.2*	*205.1*	*193.4*	*1.7*	*1.0*	*90.8*	*82.8*	
1.9	*2.3*	*1.3*	*1.7*	*0.2*	*0.2*	—	—	*0.4*	*0.4*	*11.8*	*12.6*	*3.2*	*3.8*	*136.7*	*158.7*	*1.4*	*1.0*	*149.9*	*172.3*	*141.1*	*162.9*	*1.5*	*1.0*	*7.3*	*8.4*	
7.9	5.0	2.0	1.1	0.4	0.1	0.1	—	5.4	3.8	40.1[c]	47.0[c]	1.3	1.4	365.8	344.6	—	—	443.2[d]	423.0[d]	366.7	345.3	3.8	2.7	35.4[c]	43.6[c]	2.
9.2	9.6	1.0	1.1	2.1	0.7	0.1	2.0	6.0	5.8	54.9	50.0	25.4	22.8	167.6	172.6	2.4	6.4	224.9	229.0	194.2	200.0	14.0	15.7	16.7	13.3	3.
4.5	4.4	2.2	2.7	0.3	0.1	—	—	2.0	1.6	10.3	13.5	2.2	4.9	37.6	32.0	5.1	4.3	53.0	49.8	44.5	40.2	0.6	0.8	7.9	8.8	4.
0.9	0.8	0.1	0.1	0.6	0.6	—	—	0.2	0.1	7.4	5.6	4.8	3.7	31.1	23.4	6.8	5.7	45.3	34.7	43.2	33.3	1.4	0.3	0.7	1.1	5.
1.3	1.0	0.3	0.3	—	—	—	—	1.0	0.7	5.6	5.4	1.0	1.0	17.6	20.9	1.2	1.1	24.4	27.4	19.2	22.3	1.6	1.7	3.6	3.4	6.
1.3	1.3	0.4	0.2	0.1	0.1	—	—	0.8	1.0	20.6	20.8	17.6	17.8	105.5	113.4	1.9	2.7	128.0	136.9	124.1	133.1	1.2	1.1	2.7	2.7	7.
5.2	3.6	0.8	0.8	0.1	0.3	—	—	4.3	2.5	29.2	30.7	14.2	18.1	25.6	28.5	0.1	0.2	54.9	59.4	33.8	39.0	2.4	1.9	18.7	18.5	8.
3.3	1.7	0.3	0.4	0.1	0.1	—	—	2.9	1.2	10.7	9.5	2.1	3.0	17.5	21.8	0.2	0.9	28.4	32.2	19.5	25.5	2.3	2.0	6.6	4.7	9.
—	—	—	—	—	—	—	—	—	—	0.4	0.3	—	—	2.1	3.1	0.1	0.1	2.6	3.5	2.2	3.2	0.3	0.3	0.1	—	10.
9.9	8.4	0.8	1.5	0.8	1.0	1.1	0.1	7.2	5.8	42.3	42.0	12.5	14.0	64.0	71.0	0.6	0.8	106.9	113.8	72.0	79.8	12.1	11.4	22.8	22.6	11.
5.7	14.1	4.0	3.3	0.3	0.3	0.1	0.6	11.3	9.9	71.1	76.0	23.4	27.0	117.4	147.1	1.9	2.9	190.4	226.0	130.6	165.1	18.0	19.6	41.8	41.3	12.
—	—	—	—	—	—	—	—	—	—	0.2	—	—	—	0.3	0.2	—	—	0.5	0.2	0.3	0.2	—	—	0.2	—	13.
0.4	0.5	0.1	—	—	—	—	—	0.3	0.5	0.7	0.5	—	—	2.5	4.2	—	—	3.2	4.7	2.5	4.2	0.2	—	0.5	0.5	14.
1.9	2.2	0.6	0.7	—	—	—	—	1.3	1.5	4.6	5.1	0.3	1.0	11.7	15.1	0.2	—	16.5	20.2	12.0	15.7	0.9	0.3	3.6	4.2	15.
6.0	17.5	4.8	13.9	—	—	—	—	11.2	3.6	38.4	51.5	16.5	31.2	59.1	84.1	13.1	0.9	110.6	136.5	77.6	90.4	2.7	4.1	30.3	42.0	16.
6.7	31.8	7.5	5.4	2.3	1.8	1.5	3.4	25.4	21.2	110.1	108.5	29.8	33.9	143.2	154.3	9.9	9.8	263.2	272.6	173.8	184.8	26.3	22.2	63.1	65.6	17.
3.7	10.1	3.1	3.4	—	—	—	—	10.6	6.7	60.5	57.9	13.1	14.0	160.8	171.3	1.4	2.5	222.7	231.7	173.8	186.4	15.5	14.3	33.4	31.0	18.
3.3	2.6	0.6	0.6	—	—	—	—	2.7	2.0	13.5	13.2	2.1	2.5	48.0	50.7	0.1	0.3	61.6	64.2	49.2	52.5	2.9	2.9	9.5	8.8	19.
9.7	16.5	1.9	2.0	1.9	1.5	2.6	5.5	13.3	7.5	94.6[f]	94.4[f]	28.7	29.4	131.2	141.9	7.2	8.2	245.8[g]	255.9[g]	164.3	175.9	18.1	25.3	50.6[f]	43.3[f]	20.
99.8	182.6	43.7	47.8	14.2	13.0	5.5	11.9	146.4	109.9	845.2	869.7	271.4	312.4	2141.0	2253.1	61.1	51.7	3097.4	3217.3	2398.9	2524.3	133.7	134.9	514.7	515.3	TOTAL EXPORTS
10.7	10.2	3.2	2.8	0.2	0.2	—	—	7.3	7.2	109.3	130 7	64.6	89.6	590.9	613.5	19.6	19.2	719.8	763.4	663.1	704.6	9.5	5.3	47.2	53.5	1.
1.3	*1.6*	*0.4*	*0 5*	*0.1*	*0.1*	—	—	*0.8*	*1.0*	*40.1*	*56.9*	*32.4*	*48.3*	*315.0*	*333.8*	*7.5*	*3.5*	*362.6*	*394.2*	*350.2*	*379.8*	*0.2*	*0.2*	*12.2*	*14.2*	
7.9	*6.5*	*2.3*	*1.6*	*0.1*	*0.1*	—	—	*5.5*	*4.8*	*47.8*	*50.6*	*22.4*	*29.2*	*174.4*	*155.0*	*6.2*	*5.8*	*228.4*	*211.4*	*196.8*	*179.7*	*4.8*	*1.0*	*26.8*	*30.7*	
0.6	*0.6*	*0.2*	*0.1*	—	—	—	—	*0.4*	*0.5*	*3.9*	*4.8*	*0.7*	*1.2*	*15.1*	*28.7*	*0.2*	*4.4*	*19.2*	*37.9*	*15.6*	*33.4*	*1.0*	*1.4*	*2.6*	*3.1*	
—	0.1	—	0.1	—	—	—	—	—	—	—	0.1	—	—	1.5	1.1	—	—	1.5	1.2	1.5	1.1	—	—	—	0.1	2.
0.6	0.2	0.5	0.1	—	—	—	—	0.1	0.1	13.7	11.6	11.5	8.3	10.1	8.0	—	—	23.8	19.6	21.1	16.0	1.4	3.0	1.3	0.6	3.
1.2	0.7	0.3	0.3	—	—	—	—	0.9	0.4	3.7	2.9	1.2	1.5	12.1	12.6	0.2	0.4	16.0	15.9	13.3	14.1	0.2	0.1	2.5	1.7	4.
—	—	—	—	—	—	—	—	—	—	0.5	0.5	0.3	0.2	2.5	1.8	0.6	0.7	3.6	3.0	3.4	2.7	0.2	0.2	—	0.1	5.
1.1	1.2	0.1	0.1	—	—	—	—	1.0	1.1	4.0	3.7	1.7	1.3	6.5	6.8	—	0.1	10.5	10.6	7.2	7.9	0.5	0.3	2.8	2.4	6.
0.8	0.3	0.1	—	0.2	0.2	—	—	0.5	0.1	14.0	14.1	12.0	12.9	37.2	38.0	2.6	2.7	53.8	54.8	52.0	53.7	1.0	0.7	0.8	0.4	7.
1.0	0.9	0.1	0.1	—	—	—	—	0.9	0.8	5.8	5.3	2.9	3.4	10.0	11.5	0.1	—	15.9	16.8	11.5	13.4	1.4	0.8	3.0	2.6	8.
1.4	1.6	0.2	0.1	0.1	0.1	—	0.2	1.1	1.2	4.7	5.2	1.1	0.5	23.0	18.4	2.1	4.2	29.8	27.8	25.7	22.9	1.9	2.5	2.2	2.4	9.
0.4	0.4	0.2	0.1	—	0.1	—	—	0.2	0.2	1.2	1.4	0.2	0.2	7.3	8.4	0.1	1.9	8.6	11.7	7.4	10.4	0.5	0.6	0.7	0.7	10.
6.8	7.2	1.7	0.8	1.4	0.8	0.2	1.8	3.5	3.8	25.9	26.9	8.4	8.1	52.1	63.4	3.5	8.9	81.5	99.2	61.2	76.7	9.2	12.4	11.1	10.1	11.
1.6	2.9	0.4	0.9	0.1	0.2	0.1	0.6	1.0	1.2	9.4	10.5	1.7	2.4	24.0	27.5	1.5	1.7	34.9	39.7	26.7	31.0	4.6	4.7	3.6	4.0	12.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.3	0.2	—	—	0.3	0.2	0.3	0.2	—	—	—	—	13.
—	0.1	—	—	—	—	—	0.1	—	—	—	0.1	—	—	1.5	0.6	—	—	1.5	0.7	1.5	0.6	—	0.1	—	—	14.
—	0.1	—	—	—	—	—	—	—	0.1	0.6	1.5	0.5	1.3	8.6	5.2	—	0.2	9.2	6.9	9.0	6.6	0.1	0.1	0.1	0.2	15.
0.7	0.8	0.6	0.1	—	0.5	—	0.2	0.1	—	8.9	3.9	6.0	1.0	21.3	40.6	1.3	—	31.5	44.5	23.7	42.0	0.3	1.6	7.5	0.9	16.
4.0	4.4	1.4	1.0	0.2	0.3	0.3	1.0	2.1	2.1	16.0	16.2	4.6	4.6	19.0	21.0	1.2	1.1	36.2	38.3	23.8	25.2	5.6	6.2	6.8	6.9	17.
0.1	0.2	—	—	—	—	—	—	0.1	0.2	6.0	6.3	4.1	5.2	19.6	23.3	0.5	0.8	26.1	30.4	23.8	29.0	1.6	0.7	0.7	0.7	18.
0.4	0.5	0.1	0.2	—	—	—	—	0.3	0.3	2.6	2.8	1.5	1.5	7.3	8.1	0.2	0.6	10.1	11.5	8.9	10.1	0.2	0.2	1.0	1.2	19.
0.8	0.5	0.1	0.1	0.2	—	0.1	—	0.4	0.4	14.5	15.0	11.5	12.0	25.7	31.7	0.8	0.8	41.0	47.5	37.4	43.7	1.7	1.7	1.9	2.1	20.
31.6	32.3	9.0	6.8	2.4	2.4	0.7	3.9	19.5	19.2	240.8	258.7	133.8	154.0	880.5	941.7	34.3	43.3	1155.6	1243.7	1022.5	1111.9	39.9	41.2	93.2	90.6	TOTAL EXPORTS
2.1	1.6	0.6	0.4	—	—	—	—	1.5	1.2	51.0	46.5	15.8	17.4	84.7	77.2	14.8	11.7	150.5	135.4	112.5	102.8	15.3	9.3	22.7	23.3	1.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.8	2.5	—	—	3.8	2.5	3.8	2.5	—	—	—	—	2.
3.4	3.8	—	—	2.8	0.1	0,1	3.3	0.5	0.4	46.1	52.5	30.2	35.9	162.5	140.4	4.4	4.0	213.0	196.9	199.4	179.6	12.0	15.6	1.6	1.7	3.
1.6	*0.8*	—	—	*1.2*	*0.1*	*0.1*	*0.4*	*0.3*	*0.3*	*12.6*	*10.9*	*4.5*	*2.8*	*56.5*	*39.1*	*2.2*	*1.1*	*71.3*	*51.1*	*64.0*	*42.3*	*6.2*	*7.5*	*1.1*	*1.3*	
0.1	—	—	—	*0.1*	—	—	—	—	—	*0.3*	*0.4*	*0.2*	*0.3*	*20.6*	*19.4*	*2.2*	*1.8*	*23.1*	*21.6*	*23.1*	*21.5*	—	—	—	*0.1*	
0.3	0.5	0.2	0.2	—	—	—	—	0.1	0.3	2.6	2.8	1.5	1.4	38.6	30.3	14.7	11.1	55.9	44.2	54.6	42.5	0.4	0.5	0.9	1.2	4.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.2	1.6	—	—	2.2	1.6	2.2	1.6	—	—	—	—	5.
—	—	—	—	—	—	—	—	—	—	0.8	0.9	0.6	0.8	0.8	1.2	—	—	1.6	2.1	1.3	2.0	—	—	0.3	0.1	6.
0.9	1.0	—	0.3	—	—	0.8	0.6	0 1	0.1	10.0	15.5	4.5	9.2	105.7	92.2	2.2	3.4	117.9	111.1	112.4	104.7	5.0	5.8	0.5	0.6	7.
0.1	0.7	—	—	—	0.1	—	—	0.1	0.6	2.4	2.8	1.3	0.5	7.0	16.9	—	—	9.4	19.7	8.3	17.5	0.8	1.3	0.3	0.9	8.
—	0.1	—	—	—	—	—	—	—	0.1	0.1	0.2	—	—	0.7	0.6	—	—	0.8	0.8	0.7	0.6	0.1	0.1	—	0.1	9.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.5	0.8	—	0.1	0.5	0.9	0.5	0.9	—	—	—	—	10.
0.3	0.6	—	—	0.3	0.5	—	—	—	0.1	1 8	2.1	0.5	0.5	10.4	11.4	—	0.3	12.2	13.8	11.2	12.6	0.8	0.9	0.2	0.3	11.
0.3	0.9	0.2	0.4	—	—	—	0.2	0.1	0.3	5.6	5.4	2.1	3.4	3.8	4.7	—	—	9.4	10.1	3.9	5.1	2.5	1.0	3.0	4.0	12.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	—	0.1	0.1	0.1	0.1	—	—	—	—	13.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.4	0.1	—	—	0.4	0.1	0.4	0.1	—	—	—	—	14.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.1	1.0	—	—	0.1	1.0	0.1	1.0	—	—	—	—	15.
6.6	4.1	5.0	3.4	1.1	—	—	0.2	0.5	0.5	26.3	2.3	21.8	6.7	36.2	14.0	—	0.9	62.5	27.2	37.5	15.1	1.7	4.9	23.3	7.2	16.
4.4	2.3	4.0	1.3	—	—	—	0.4	0.4	0.6	10.9	8.9	3.1	3.1	54.9	55.8	1.3	1.9	67.1	66.6	59.2	60.5	3.0	3.6	4.9	2.5	17.
0.5	0.2	—	—	—	—	—	—	0.5	0.2	3.3	2.9	1.5	1.7	6.6	7.2	2.7	2.7	12.6	12.8	9.9	10.5	0.9	0.7	1.8	1.6	18.
8.9	6.4	1.5	1.8	—	—	0.9	—	6.5	4.6	39.9	32.3	4.2	4.0	44.9	45.4	0.2	0.8	85.0	78.5	45.6	47.1	18.6	14.8	20.8	16.6	19.
0.6	0.6	0.1	0.1	0.1	0.1	—	—	0.4	0.4	5.7	6.0	3.8	4 2	8.3	11.1	0.2	0.2	14.2	17.3	12.1	15.5	1.0	0.9	1.1	0.9	20.
28:4	22.8	11.6	7.9	4.3	0.8	1.8	4.7	10.7	9.4	206.5	191.1	90.9	88.8	572.2	514.5	40.5	37.1	819.2	742.7	675.7	622.3	62.1	59.4	81.4	61.0	TOTAL EXPORTS

“Sources and methods”.   [f] Excluding ships' stores.   [g] Including ships' stores.

Exports of selected European countries and the United S

Millions of c

Exporting country and commodity group / Area of destination and period	North America		of which: United States		of which: Canada		Latin America		Overseas Sterling Area		of which: British overseas territories		of which: Union of South Africa		of which: Other in Africa		of which: Other in Asia		of which: Other in Oceania		Affiliate overseas territorie	
	1957	1958	1957	1958	1957	1958	1957	1958	1967	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	19
SWEDEN																						
1. Food, drink and tobacco	1.8	2.4	1.6	2.2	0.2	0.2	0.9	0.8	0.2	0.2	0.1	0.1	—	—	—	—	—	—	0.1	0.1	0.7	1
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. Metallic ores and base metals	27.3	19.4	25.6	18.2	1.7	1.2	16.6	17.1	5.6	6.2	0.3	0.2	1.3	1.6	0.3	0.2	2.8	3.0	0.9	1.2	0.2	0
of which : Ores and scrap	*9.8*	*1.7*	*9.8*	*1.7*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Iron and steel	*13.6*	*12.8*	*12.4*	*11.6*	*1.2*	*1.2*	*15.2*	*13.7*	*5.0*	*6.0*	*0.3*	*0.2*	*1.3*	*1.5*	*0.2*	*0.2*	*2.3*	*2.9*	*0.9*	*1.2*	*0.1*	*0*
4. Oil-seeds, fats and oils	0.1	0.3	0.1	0.3	—	—	0.1	—	0.3	0.6	0.3	0.5	—	—	—	—	—	—	—	0.1	0.2	1
5. Textile fibres, natural	0.2	0.1	0.2	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. Selected construction materials	1.5	1.6	1.4	1.5	0.1	0.1	0.8	0.5	0.7	0.6	0.5	0.4	0.1	0.1	—	—	0.1	0.1	—	—	0.8	0
7. Other raw materials	22.3	31.4	22.2	30.9	0.1	0.5	22.6	17.8	15.3	14.9	1.1	1.0	2.5	1.6	0.1	—	5.0	6.1	6.6	6.2	3.0	2
of which : Timber	—	—	—	—	—	—	*0.1*	—	*6.0*	*4.7*	*1.1*	*0.9*	*1.9*	*1.0*	*0.1*	—	*2.1*	*2.0*	*0.8*	*0.8*	*2.7*	*2*
Pulp	*18.3*	*21.7*	*18.3*	*21.5*	—	*0.2*	*22.4*	*17.7*	*9.2*	*10.1*	—	—	*0.6*	*0.6*	—	—	*2.9*	*4.1*	*5.7*	*5.4*	*0.2*	*0*
8. Metal manufactures	9.7	9.1	6.4	6.9	3.3	2.2	9.9	7.6	14.6	11.1	1.7	1.1	3.8	3.7	0.5	0.6	6.6	2.9	2.0	2.8	1.0	0
9. Power-generating (except electric) machinery	0.5	1.1	0.2	0.6	0.3	0.5	3.8	3.9	3.5	3.2	0.4	0.3	0.7	0.2	—	0.1	1.6	1.8	0.8	0.8	0.4	0
10. Agricultural machinery	0.4	0.8	—	0.2	0.4	0.6	1.1	0.9	1.5	1.2	—	—	0.8	0.6	0.1	—	—	0.1	0.6	0.5	0.1	—
11. Metal-working, mining, construction and other industrial machinery	18.7	18.0	13.2	13.4	5.5	4.6	20.4	19.2	17.0	18.6	1.5	1.2	4.2	5.0	0.8	0.7	4.9	5.6	5.6	6.1	2.1	2
12. Electric machinery	3.1	3.1	2.4	2.2	0.7	0.9	20.9	25.3	9.9	9.2	0.7	0.4	1.4	3.2	0.1	0.2	3.0	2.6	4.7	2.8	0.6	0
13. Tractors	—	0.1	—	0.1	—	—	0.6	1.4	0.1	0.3	—	—	0.1	0.3	—	—	—	—	—	—	—	0.
14. Railway vehicles	0.1	0.1	0.1	0.1	—	—	0.1	1.3	0.1	—	0.1	—	—	—	—	—	—	—	—	—	—	0.
15. Road motor vehicles	14.5	25.9	14.4	25.1	0.1	0.8	13.2	7.6	1.7	3.0	0.4	0.8	0.8	1.5	—	—	0.4	0.7	0.1	—	1.3	1.
16. Other vehicles	0.7	0.8	0.7	0.8	—	—	8.5	33.3	2.7	0.1	0.9	—	—	0.1	—	—	1.8	—	—	—	—	—
17. Chemicals	1.8	2.2	1.6	2.0	0.2	0.2	4.6	5.7	3.2	3.3	0.3	0.3	1.0	1.2	0.1	0.1	0.8	0.7	1.0	1.0	0.3	0.
18. Textile manufactures and clothing	1.7	2.9	1.4	2.7	0.3	0.2	0.5	0.5	1.4	2.0	0.1	—	0.7	0.9	0.2	0.3	0.1	0.4	0.3	0.4	0.1	0.
19. Paper, manufactures of wood and paper (excluding furniture)	5.6	7.8	5.0	7.0	0.6	0.8	27.3	26.1	30.7	29.5	6.9	5.0	7.9	8.1	1.2	1.0	7.8	6.7	6.9	8.7	2.5	2.
20. All other commodities	7.5	9.0	6.7	7.8	0.8	1.2	4.8	5.9	5.9	6.1	3.1	2.3	1.1	1.5	0.6	0.5	0.4	1.1	0.7	0.7	2.6	2.
TOTAL EXPORTS	117.5	136.1	103.2	122.1	14.3	14.0	156.7	174.9	114.4	110.1	18.4	13.6	26.4	29.6	4.0	3.7	35.3	31.8	30.3	31.4	15.9	17.
NINE SELECTED EUROPEAN COUNTRIES COMBINED [c]																						
1. Food, drink and tobacco	351.5	400.2	301.8	348.7	49.7	51.5	102.3	97.2	390.7	389.6	246.3	220.2	15.2	14.1	44.6	39.4	51.7	87.3	32.9	28.6	319.4	345.
2. Mineral fuels and petroleum products	9.1	8.5	5.7	6.4	3.4	2.1	6.1	11.4	79.4	79.7	41.1	42.3	5.6	4.6	11.2	11.4	15.8	16.0	5.7	5.4	115.8	152.
3. Metallic ores and base metals	443.0	416.1	347.1	348.3	95.9	67.8	437.4	390.9	614.4	506.9	167.2	125.9	64.5	50.0	28.2	20.7	241.9	212.7	112.6	97.6	143.6	144.
4. Oil-seeds, fats and oils	14.0	19.9	11.6	14.3	2.4	5.6	6.4	5.4	14.0	11.8	5.1	5.1	1.5	1.0	0.8	0.5	3.6	1.9	3.0	3.3	18.3	21.
5. Textile fibres, natural	65.1	51.7	45.9	37.6	19.2	14.1	6.7	7.3	29.7	23.0	2.2	1.4	2.7	1.6	0.4	0.4	22.2	17.5	2.2	2.1	1.7	1.
6. Selected construction materials	64.9	71.2	47.4	48.8	17.5	22.4	32.1	26.9	114.4	120.3	49.6	42.0	8.4	8.5	10.2	10.7	26.0	36.8	20.2	22.3	39.8	38.
7. Other raw materials	87.8	103.8	79.9	95.3	7.9	8.5	33.0	27.3	37.2	39.5	7.9	8.6	5.2	4.6	1.5	1.4	9.1	11.4	13.5	13.5	19.6	20.
8. Metal manufactures	161.7	157.9	118.9	117.0	42.8	40.9	129.3	131.4	354.4	324.0	106.2	92.7	42.1	39.4	26.7	30.6	117.2	105.5	62.2	55.8	109.9	119.
9. Power-generating (except electric) machinery	38.0	60.5	18.0	33.6	20.0	26.9	75.0	83.7	174.7	178.0	36.0	36.4	23.2	19.6	8.1	6.9	69.6	78.4	37.8	36.7	29.2	34.
10. Agricultural machinery	4.5	4.8	2.5	2.8	2.0	2.0	8.5	6.4	21.1	19.3	4.0	3.6	4.4	4.1	1.4	1.1	2.1	2.1	9.2	8.4	4.9	6.
11. Metal-working, mining, construction and other industrial machinery	239.8	231.9	165.1	159.7	74.7	72.2	293.6	296.6	644.1	684.0	123.0	110.6	88.7	98.5	30.3	33.0	258.9	291.1	143.2	150.8	121.2	139.
12. Electric machinery	128.7	123.1	83.2	72.7	45.5	50.4	178.9	192.7	458.1	474.7	112.3	102.1	66.2	76.2	28.2	27.0	143.9	157.2	107.5	112.2	97.6	104.
13. Tractors	13.6	26.3	7.4	19.1	6.2	7.2	36.6	44.0	89.3	71.9	9.9	8.3	19.3	18.8	3.6	3.8	13.3	8.7	43.2	32.3	13.1	14.
14. Railway vehicles	7.9	6.2	0.4	0.6	7.5	5.6	27.2	33.9	114.5	142.5	14.0	11.1	26.3	65.3	13.0	14.7	50.6	43.4	10.6	8.0	20.7	27.
15. Road motor vehicles	408.3	654.4	342.9	548.6	65.4	105.8	170.6	186.8	566.6	586.0	145.0	142.4	123.8	140.3	47.2	45.0	82.1	84.7	168.5	173.6	160.6	190.
16. Other vehicles	108.1	119.4	45.4	74.0	62.7	45.4	116.1	137.4	196.9	251.0	67.8	65.0	4.2	23.0	7.8	6.6	93.1	121.8	24.0	34.6	31.4	29.
17. Chemicals	171.5	174.8	132.3	133.3	39.2	41.5	227.9	233.7	523.9	499.3	152.4	138.9	56.0	56.4	36.2	36.2	164.0	142.4	115.3	125.4	141.0	154.
18. Textile manufactures and clothing	342.7	304.2	234.9	212.7	107.8	91.5	79.9	65.4	596.5	520.5	143.0	120.2	109.9	94.3	47.3	39.2	80.0	64.2	216.3	202.6	265.1	263.
19. Paper, manufactures of wood and paper (excluding furniture)	29.1	33.6	24.5	28.4	4.6	5.2	54.9	50.9	143.9	137.4	36.9	31.3	26.0	25.8	6.9	6.8	27.7	24.1	46.4	49.4	49.0	47.
20. All other commodities	550.9	557.9	433.0	435.7	117.9	122.2	148.3	152.4	602.3	582.8	260.7	235.0	79.2	82.5	58.8	54.2	86.1	89.9	117.5	121.2	249.1	289.
TOTAL EXPORTS	3240.2	3526.4	2447.9	2737.6	792 3	788.8	2170.8	2181.7	5766.1	5642.2	1730.6	1543.1	772.4	828.6	412.4	389.6	1558.9	1597.1	1291.8	1283.8	1951.0	2145.
UNITED STATES [h]																						
1. Food, drink and tobacco	236.0	238.3	5.3	2.8	230.7	235.5	442.2	446.8	362.9	346.0	53.5	56.8	2.6	1.9	7.2	6.9	260.2	248.6	39.4	31.8	19.9	20.
of which : Fruit and vegetables	*141.4*	*142.5*	*0.8*	*0.4*	*140.6*	*142.1*	*51.3*	*63.1*	*7.6*	*7.2*	*5.4*	*5.5*	*0.8*	*0.5*	*0.1*	—	*0.5*	*0.4*	*0.8*	*0.8*	*1.2*	*1.*
Cereals and preparations	*24.6*	*27.4*	*1.2*	*0.8*	*23.4*	*26.6*	*224.5*	*212.7*	*264.3*	*251.7*	*16.3*	*19.0*	*0.1*	*0.1*	*5.4*	*4.8*	*242.5*	*227.8*	—	—	*9.8*	*8.*
Tobacco	*4.0*	*4.3*	*0.4*	*0.4*	*3.6*	*3.9*	*28.4*	*31.4*	*63.4*	*51.8*	*17.0*	*16.4*	*0.6*	*0.2*	*1.1*	*1.3*	*8.0*	*5.4*	*36.7*	*28.5*	*4.8*	*7.*
2. Mineral fuels and petroleum products	337.7	221.1	1.4	0.8	336.3	220.3	189.3	127.1	47.3	41.8	9.9	8.4	10.1	8.2	2.5	1.5	11.5	10.6	13.3	13.1	42.1	24.
3. Metallic ores and base metals	417.3	273.5	0.7	0.5	416.6	273.0	400.5	245.9	83.1	39.4	14.4	10.5	13.7	4.3	1.5	0.9	42.7	19.0	10.8	4.7	5.9	3.
of which : Iron and steel	*307.1*	*199.2*	*0.5*	*0.3*	*306.6*	*198.9*	*341.6*	*200.1*	*69.2*	*34.7*	*13.1*	*10.0*	*12.8*	*3.7*	*1.4*	*0.9*	*31.8*	*16.2*	*10.1*	*3.9*	*5.5*	*3.*
4. Oil-seeds, fats and oils	43.8	43.3	0.2	0.1	43.6	43.2	38.0	31.5	7.5	4.3	0.3	0.4	3.7	2.5	0.2	—	2.3	0.5	1.0	0.9	2.5	0.
5. Textile fibres, natural	52.9	36.2	—	—	52.9	36.2	33.5	14.5	79.6	45.7	15.2	15.2	5.6	5.4	1.6	0.6	45.7	15.1	11.5	9.4	3.8	3.
6. Selected construction materials	67.7	59.4	0.3	0.3	67.4	59.1	44.5	38.8	8.8	7.6	2.5	2.4	1.4	1.2	0.4	0.3	2.6	1.1	1.9	2.6	1.4	1.
7. Other raw materials	115.2	112.5	0.3	0.2	114.9	112.3	68.1	59.8	50.6	46.2	7.1	6.1	14.4	11.5	0.1	0.2	6.7	6.9	22.3	21.5	2.3	1.
8. Metal manufactures	105.5	96.1	0.9	0.7	104.6	95.4	134.4	131.2	28.4	22.1	11.5	10.1	4.4	3.8	1.1	1.0	8.5	4.5	2.9	2.7	5.2	3.
9. Power-generating (except electric) machinery	72.8	63.9	0.2	0.3	72.6	63.6	89.2	94.2	16.1	18.7	4.7	4.5	2.2	2.7	0.4	0.7	4.3	4.5	4.5	6.3	5.7	6.
10. Agricultural machinery	62.2	65.1	—	0.1	62.2	65.0	32.6	22.5	11.2	9.1	1.1	1.0	4.4	3.1	0.4	0.3	1.9	1.5	3.4	3.2	2.4	2.
11. Metal-working, mining, construction and other industrial machinery	568.9	452.1	1.0	1.4	567.9	450.7	711.9	683.0	215.2	194.4	52.5	44.9	36.1	36.0	11.5	14.4	66.5	53.2	48.6	45.9	44.8	43.
12. Electric machinery	194.5	168.0	2.2	4.5	192.3	163.5	233.9	264.8	49.9	36.8	8.2	7.0	8.6	7.7	0.9	1.5	20.2	11.8	12.0	8.8	6.2	5.
13. Tractors	104.8	101.4	0.1	—	104.7	101.4	188.4	82.5	62.9	43.9	9.4	7.0	11.9	8.3	3.5	2.5	13.7	6.9	24.4	19.2	14.6	11.
14. Railway vehicles	22.7	6.9	0.3	—	22.4	6.9	86.4	124.8	11.0	36.2	0.6	4.4	0.8	8.8	0.1	0.1	9.2	22.1	0.3	0.8	0.5	1.
15. Road motor vehicles	320.6	286.6	1.3	0.9	319.3	285.7	530.7	420.8	120.8	99.9	16.1	18.6	50.1	36.5	3.2	2.9	37.4	29.0	14.0	12.9	27.5	17.
16. Other vehicles	33.3	30.4	0.1	0.1	33.2	30.3	134.1	102.7	21.2	19.9	6.4	3.6	0.8	3.8	0.7	0.8	2.2	10.2	11.1	1.5	5.2	6.
17. Chemicals	225.8	217.5	1.3	1.3	224.5	216.2	420.7	378.1	99.9	94.7	20.8	22.1	24.5	23.6	2.6	2.0	33.4	26.6	18.6	20.4	10.9	8.
18. Textile manufactures and clothing	106.7	108.4	1.5	0.8	105.2	107.6	148.4	139.4	73.4	66.4	22.6	20.9	42.3	35.8	0.6	0.6	2.2	2.2	5.7	6.9	10.4	9.
of which : Cotton fabrics	*40.0*	*43.1*	*0.2*	*0.1*	*39.8*	*43.0*	*46.2*	*45.5*	*19.9*	*16.1*	*3.8*	*3.6*	*14.6*	*11.2*	*0.1*	*0.1*	*0.3*	*0.3*	*1.1*	*0.9*	*2.2*	*2.*
19. Paper, manufactures of wood and paper (excluding furniture)	59.9	61.6	0.5	0.4	59.4	61.2	84.6	82.5	17.7	18.1	4.6	4.9	8.7	8.3	0.7	0.8	1.1	1.2	2.6	2.9	1.9	1.
20. All other commodities	317.0	322.0	2.3	1.9	314.7	320.1	317.4	290.4	116.1	86.4	43.1	36.4	22.0	19.5	2.6	1.9	37.8	17.9	10.6	10.7	19.7	16.
Unallocated exports	433.5	471.3	0.5	0.9	433.0	470.4	264.6	100.7	51.5	84.4	21.1	19.6	14.1	15.5	2.1	3.3	7.3	35.8	6.9	10.2	23.4	25.
TOTAL EXPORTS	3898.8	3435.6	20.4	18.0	3878.4	3417.6	4523.4	3882.0	1535.1	1362.0	325.6	304.8	282.4	248.4	43.9	43.2	617.4	529.2	265.8	236 4	256.3	214.

Sources and methods : See Appendix B. [a] Excluding the sterling area. [b] Including unallocated exports. [c] Belgium-Luxembourg, Denmark, France, western Germany, Italy, Netherlands, Norway, Sweden and the United Kingdom.

[h] Excluding special categories.

(concluded)

main commodity groups and by area of destination

lars, f.o.b.

Other overseas countries		of which: In Africa		Japan		China		Other in Asia		Total overseas countries [b]		of which: Dollar Area		Western Europe		Eastern Europe		Total World		of which: Highly industrialized countries		Semi-industrialized countries		Non-industrialized countries [b]		Group
1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	
0.8	1.0	0.6	0.8	—	—	—	—	0.2	0.2	4.4	5.5	2.3	2.7	70.7	60.7	11.5	6.3	86.6	72.5	84.0	69.4	0.6	0.7	2.0	2.4	1.
—	0.1	—	0.1	—	—	—	—	—	—	—	0.2	—	—	3.4	3.6	—	—	3.4	3.8	3.4	3.6	—	0.1	—	0.1	2.
6.2	11.8	0.3	1.2	3.8	1.1	0.3	6.7	1.8	2.8	55.9	54.7	28.7	21.7	328.8	287.2	18.0	21.1	402.7	363.0	377.9	328.8	20.7	27.9	4.1	6.3	3.
—	—	—	—	—	—	—	—	—	—	*9.8*	*1.8*	*9.9*	*1.7*	*203.4*	*172.9*	*11.7*	*12.3*	*224.9*	*187.0*	*224.9*	*186.9*	—	—	—	*0.1*	
5.5	*11.5*	*0.2*	*1.1*	*3.3*	*1.0*	*0.3*	*6.6*	*1.7*	*2.8*	*39.4*	*44.2*	*15.0*	*14.9*	*93.0*	*85.7*	*6.1*	*7.8*	*138.5*	*137.7*	*116.0*	*107.3*	*18.8*	*24.2*	*3.7*	*6.2*	
0.2	0.8	0.2	0.7	—	—	—	—	—	0.1	0.9	3.5	0.1	0.2	8.5	13.0	1.0	0.8	10.4	17.3	9.6	14.1	—	—	0.8	3.2	4.
0.3	0.1	—	—	—	—	—	—	0.3	0.1	0.5	0.2	0.2	0.1	4.4	4.2	0.8	0.6	5.7	5.0	5.4	4.9	—	—	0.3	0.1	5.
1.1	0.8	0.1	0.1	—	—	—	—	1.0	0.7	4.9	4.2	1.8	1.8	5.3	6.3	—	—	10.2	10.5	6.8	7.9	0.2	0.2	3.2	2.4	6.
6.9	7.4	3.9	3.5	0.4	0.3	0.1	0.7	2.5	2.9	70.1	74.3	24.8	33.7	508.7	428.7	10.0	7.9	588.8	510.9	541.4	468.3	32.5	28.9	14.9	13.7	7.
3.6	*3.2*	*1.9*	*1.0*	—	—	—	—	*1.7*	*2.2*	*12.4*	*10.6*	—	—	*226.2*	*174.8*	*1.6*	*0.7*	*240.2*	*186.1*	*227.8*	*175.5*	*2.8*	*1.8*	*9.6*	*8.8*	
3.1	*4.0*	*2.0*	*2.5*	*0.3*	*0.1*	*0.1*	*0.7*	*0.7*	*0.7*	*53.2*	*53.6*	*20.7*	*24.0*	*266.6*	*239.5*	*5.4*	*3.8*	*325.2*	*296.9*	*290.6*	*265.1*	*29.6*	*26.9*	*5.0*	*4.9*	
5.0	4.6	0.7	0.6	0.4	0.2	0.5	1.1	3.4	2.7	40.2	33.3	13.6	13.1	47.5	55.0	2.2	2.0	89.9	90.3	59.8	66.3	14.1	13.3	16.0	10.7	8.
2.1	2.1	0.2	0.2	0.3	0.6	0.4	—	1.2	1.3	10.3	10.6	1.6	2.3	16.7	17.3	1.0	3.8	28.0	31.7	18.5	22.8	6.3	5.4	3.2	3.5	9.
0.2	0.3	—	—	0.1	0.1	—	—	0.1	0.2	3.3	3.2	0.5	1.0	11.1	11.7	0.3	0.9	14.7	15.8	11.9	13.5	2.3	1.8	0.5	0.5	10.
35.6	15.4	1.4	1.1	4.8	3.2	25.2	7.3	4.2	3.8	93.8	73.6	27.2	26.7	111.5	116.7	14.4	14.5	219.7	204.8	149.4	152.4	52.8	35.8	17.5	16.6	11.
5.8	4.4	1.1	1.0	0.3	0.2	0.5	0.2	3.9	3.0	40.3	42.5	18.6	23.4	36.1	38.2	2.9	5.1	79.3	85.8	42.4	46.6	18.5	18.9	18.4	20.3	12.
0.3	0.6	—	—	—	—	—	—	0.3	0.6	1.0	2.5	0.2	0.5	3.6	5.3	—	—	4.6	7.8	3.6	5.4	0.4	1.2	0.6	1.2	13.
0.2	0.3	0.1	0.2	—	—	—	—	0.1	0.1	0.5	1.8	0.1	1.5	5.6	7.2	—	—	6.1	9.0	5.7	7.3	0.1	—	0.3	1.7	14.
2.0	3.9	0.7	1.1	—	—	—	—	1.3	2.8	32.7	42.1	15.1	26.6	30.3	40.0	—	—	63.0	82.1	44.8	65.9	12.6	7.9	5.6	8.3	15.
11.4	16.2	11.3	15.8	—	—	—	—	0.1	0.4	23.3	50.4	18.6	47.8	130.8	132.2	3.1	5.6	157.2	188.2	134.6	138.6	3.6	2.1	19.0	47.5	16.
2.0	2.5	0.3	0.6	0.2	0.2	0.3	0.6	1.2	1.1	11.9	13.8	2.7	3.3	35.6	41.2	2.8	2.0	50.3	57.0	40.4	45.6	6.6	7.9	3.3	3.5	17.
0.8	1.4	0.2	0.4	—	—	0.1	0.4	0.5	0.6	4.5	6.9	1.8	3.2	18.5	18.6	4.9	4.1	27.9	29.6	25.1	25.6	1.6	1.9	1.2	2.1	18.
14.3	10.7	3.6	2.4	0.3	—	1.4	0.3	9.0	8.0	80.4	76.2	12.2	14.6	149.6	150.5	2.9	3.0	232.9	229.7	158.4	161.3	38.7	37.4	35.8	31.0	19.
2.3	2.0	0.3	0.5	0.1	0.2	0.8	0.3	1.1	1.0	23.1	25.5	10.4	13.1	35.9	43.9	3.3	2.1	62.3	71.5	46.8	55.2	4.3	3.8	11.2	12.5	20.
97.5	86.4	25.0	30.3	10.7	6.1	29.6	17.6	32.2	32.4	502.0	525.0	180.5	237.3	1562.6	1481.5	79.1	79.8	2143.7	2086.3	1769.9	1703.5	215.9	195.2	157.9	187.6	TOTAL EXPORTS
235.8	202.9	115.4	96.8	13.7	17.0	3.8	0.9	102.9	88.2	1399.9 [d]	1435.8 [d]	426.0	478.4	2546.5	2441.1	128.8	62.1	4085.5 [e]	3949.9 [e]	3040.5	2920.4	97.1	71.2	937.6 [d]	947.4 [d]	1.
72.5	72.2	52.6	54.1	1.7	0.5	0.3	0.2	17.9	17.4	283.2 [f]	324.2 [f]	12.3	11.0	1782.9	1645.2	0.6	0.3	2205.4 [g]	2097.4 [g]	1794.3	1654.5	25.6	26.4	246.8 [f]	288.8 [f]	2.
348.8	444.1	51.0	59.5	73.8	9.0	16.3	208.0	207.7	167.6	1987.7	1905.9	668.6	566.4	2746.7	2409.1	250.1	282.7	4984.5	4597.7	3513.6	3116.9	601.0	755.6	869.9	725.2	3.
13.9	14.5	7.2	9.4	0.6	0.4	—	—	6.1	4.7	66.6	73.7	16.7	23.9	152.1	131.2	27.2	22.3	245.9	227.2	193.9	173.8	8.2	6.1	43.8	47.3	4.
53.6	55.1	4.6	8.1	23.4	17.3	16.1	22.9	9.5	6.8	156.9	139.0	68.7	56.7	483.8	330.0	41.9	34.2	682.6	503.3	614.2	433.2	45.4	46.9	23.0	23.1	5.
34.0	31.6	7.2	7.0	2.0	1.2	0.1	0.2	24.7	23.2	285.4	288.9	88.1	90.6	212.7	215.0	2.5	3.6	500.6	507.5	282.1	291.0	56.1	65.4	162.4	151.1	6.
25.8	28.2	12.2	13.8	2.9	1.9	1.3	2.7	9.4	9.8	203.5	219.5	95.0	110.9	1084.3	973.2	23.9	24.6	1311.7	1217.3	1198.9	1103.5	52.0	50.0	60.8	63.8	7.
116.8	107.7	28.6	27.6	3.6	3.8	1.5	6.2	83.1	70.1	872.6	841.4	248.4	251.0	503.5	501.3	10.7	10.9	1386.8	1353.6	679.5	673.9	223.7	207.1	483.6	472.6	8.
66.2	85.8	16.2	26.6	2.5	2.7	0.9	1.3	46.6	55.2	383.2	442.7	61.2	92.4	370.8	383.9	12.1	20.9	766.1	847.5	423.4	468.0	171.5	178.0	171.2	201.5	9.
5.6	7.6	1.9	2.5	0.5	0.6	—	0.2	3.2	4.3	44.6	44.9	7.1	7.7	108.7	114.4	1.6	3.4	154.9	162.7	115.3	123.2	20.6	18.1	19.0	21.4	10.
291.4	305.0	49.8	56.9	56.3	58.8	36.4	31.3	148.9	158.0	1590.4	1657.6	403.9	394.8	1696.3	1720.2	91.9	147.8	3378.6	3525.6	2084.3	2158.7	662.3	706.8	632.0	660.1	11.
151.3	161.6	37.9	42.0	5.9	4.9	6.8	9.0	100.7	105.7	1015.1	1057.1	231.6	242.5	854.2	928.4	38.8	46.6	1908.1	2032.1	1027.6	1103.0	379.1	395.2	501.4	533.9	12.
14.7	22.4	3.7	6.7	0.6	0.8	1.7	3.0	8.7	11.9	167.5	179.7	24.2	39.4	145.1	148.2	0.8	0.8	313.4	328.7	160.1	176.1	102.4	95.7	50.9	56.9	13.
15.1	36.2	7.3	11.5	1.0	0.1	—	0.1	6.8	24.5	185.6	245.9	16.1	20.5	82.4	83.0	1.8	1.7	269.8	330.6	93.1	91.0	102.2	130.2	74.5	109.4	14.
129.4	152.6	45.4	54.3	5.3	4.4	2.9	4.5	75.8	89.4	1435.9	1770.8	472.2	739.0	883.8	988.1	14.5	11.7	2334.2	2770.6	1311.9	1658.6	457.0	476.3	565.3	635.7	15.
230.2	159.5	155.3	94.8	3.0	1.6	1.2	0.4	70.7	62.7	682.9	697.1	358.4	322.5	647.5	760.8	43.2	20.7	1373.6	1478.6	801.8	902.5	126.5	179.6	445.3	396.5	16.
345.4	370.9	83.1	86.0	49.8	52.8	66.7	82.5	145.8	149.6	1410.6	1434.7	286.6	296.1	1365.9	1424.2	79.3	81.5	2855.8	2940.4	1666.5	1733.3	482.0	485.7	707.3	721.4	17.
201.1	185.3	66.4	65.4	13.9	10.7	6.2	10.6	114.6	98.6	1485.6	1339.3	394.8	350.9	1476.1	1349.3	66.1	71.6	3027.8	2760.2	1898.8	1735.8	398.9	357.0	730.1	667.4	18.
55.2	49.0	20.1	21.2	0.8	0.2	2.7	2.4	31.6	25.2	332.5	318.0	47.2	51.7	407.8	414.7	8.7	10.7	749.0	743.4	446.4	459.2	124.8	119.5	177.8	164.7	19.
222.3	209.8	90.9	86.0	14.5	13.5	12.9	18.1	104.0	92.2	1773.9 [d]	1792.3 [d]	643.8	660.0	1484.9	1554.5	49.5	54.1	3325.6 [e]	3416.5 [e]	2099.8	2180.0	316.8	323.1	891.7 [d]	897.8 [d]	20.
2629.1	2702.0	856.8	830.2	275.8	202.2	177.8	404.5	1318.7	1265.1	15763.6	16208.5	4570.9	4806.4	19036.0	18515.8	894.0	912.2	35859.9	35790.8	23446.0	23156.6	4453.2	4693.9	7794.4	7786.0	TOTAL EXPORTS
414.9	418.7	25.6	29.8	137.0	140.5	—	—	252.3	248.4	1560.0	1554.6	673.9	676.8	1079.5	1105.0	32.0	43.5	2671.5	2703.1	1484.5	1527.3	426.6	394.5	676.3	696.6	1.
10.2	*8.4*	*0.3*	*0.2*	*2.6*	*2.3*	—	—	*7.3*	*5.9*	*255.5*	*266.2*	*192.9*	*202.5*	*119.7*	*128.7*	*0.1*	*0.2*	*375.3*	*395.1*	*263.8*	*273.7*	*8.4*	*16.5*	*59.3*	*61.2*	
263.3	*278.5*	*8.8*	*8.8*	*112.7*	*112.9*	—	—	*141.8*	*156.8*	*796.0*	*787.6*	*216.6*	*221.3*	*534.6*	*530.1*	*29.0*	*39.4*	*1359.6*	*1357.1*	*700.9*	*709.8*	*336.0*	*292.6*	*313.2*	*345.6*	
45.7	*47.0*	*14.0*	*16.4*	*4.0*	*11.0*	—	—	*27.7*	*19.6*	*147.9*	*143.3*	*29.4*	*35.4*	*284.2*	*295.4*	*0.6*	*0.9*	*432.7*	*439.6*	*292.8*	*311.6*	*46.0*	*37.7*	*92.3*	*88.5*	
162.5	116.9	7.2	6.9	116.0	81.7	—	—	39.3	28.3	800.9	551.9	467.8	314.5	904.8	439.7	2.5	0.5	1708.2	992.1	1361.0	743.0	156.4	108.6	168.8	119.6	2.
408.9	108.4	3.7	3.4	331.4	51.0	—	—	73.8	54.0	1335.8	688.3	741.0	471.4	584.1	390.9	4.8	6.4	1924.7	1085.6	1337.6	721.8	217.1	138.8	349.9	207.2	3.
184.1	*63.8*	*3.4*	*3.3*	*115.2*	*13.0*	—	—	*65.5*	*47.5*	*921.7*	*512.7*	*591.7*	*364.1*	*184.8*	*93.1*	*4.8*	*6.2*	*1111.3*	*612.0*	*611.9*	*311.5*	*156.8*	*99.1*	*328.4*	*189.5*	
129.9	140.1	13.3	11.1	84.2	92.2	—	—	32.4	36.8	223.0	221.3	76.5	74.3	350.7	259.8	14.7	10.2	588.4	491.3	493.4	405.5	20.2	16.5	73.5	67.9	4.
289.1	199.7	4.1	4.1	225.6	123.6	—	—	59.4	72.0	460.9	301.6	79.7	61.5	668.8	412.2	25.4	26.8	1155.1	740.6	972.7	598.8	70.7	30.1	109.7	109.8	5.
12.6	7.9	0.5	0.4	1.6	1.7	—	—	10.5	5.8	153.8	132.6	108.8	92.1	13.0	13.0	—	0.1	166.8	145.7	82.3	74.2	20.6	19.9	45.1	33.7	6.
79.7	64.6	3.4	2.4	60.4	47.8	—	—	15.9	14.4	332.7	303.0	166.5	159.9	264.3	230.2	1.4	4.4	598.4	537.6	441.3	394.9	77.8	72.0	62.5	52.7	7.
34.5	29.2	2.0	1.6	4.5	5.6	—	—	28.0	22.0	372.3	346.5	229.6	202.5	24.7	29.5	—	—	397.0	376.0	134.7	131.2	43.3	49.7	154.7	130.3	8.
47.4	51.3	1.8	1.8	19.0	29.1	—	—	26.6	20.4	241.7	244.5	145.4	133.6	43.0	39.8	—	0.1	284.7	284.4	134.8	132.9	55.4	59.2	84.0	82.2	9.
6.2	6.8	1.1	1.2	0.2	0.1	—	—	4.9	5.5	123.9	115.2	81.7	84.0	8.7	7.8	0.2	0.1	132.8	123.1	71.3	73.1	29.1	17.6	23.1	23.2	10.
276.4	257.7	13.6	15.3	117.0	118.3	—	—	145.8	124.1	1946.6	1749.8	1101.8	896.3	471.6	413.0	1.2	5.8	2419.4	2168.6	1158.7	989.2	450.4	491.8	680.9	568.5	11.
87.4	78.7	3.7	2.5	12.6	22.1	—	—	71.1	54.1	651.4	634.7	385.4	358.3	100.7	100.3	0.1	0.4	752.2	735.4	307.9	290.8	136.3	153.2	228.5	210.0	12.
30.0	25.4	6.8	6.4	2.7	2.7	—	—	20.5	16.3	340.6	275.3	190.3	157.2	39.2	35.2	—	0.2	379.8	310.7	146.7	139.5	91.5	73.8	131.7	86.9	13.
16.9	13.9	0.1	0.2	0.4	0.1	—	—	16.4	13.6	139.1	183.5	58.2	43.6	5.6	10.4	—	0.2	144.7	194.1	28.7	17.6	74.9	141.6	39.5	34.2	14.
115.7	93.5	7.5	9.2	7.2	3.3	—	—	101.0	81.0	1164.2	965.7	654.6	586.1	89.0	72.9	0.1	—	1253.3	1038.6	416.9	362.8	370.9	281.8	416.6	346.8	15.
61.2	66.9	40.0	40.2	5.0	13.9	—	—	16.2	12.8	270.1	241.9	164.2	128.6	136.3	86.2	—	—	406.4	328.1	174.6	130.5	64.8	63.7	151.9	118.6	16.
203.8	188.2	10.2	13.0	77.5	76.1	—	—	116.1	99.1	1035.5	962.8	562.7	526.4	364.9	394.2	0.7	5.2	1401.1	1362.2	668.9	693.0	272.2	252.1	385.6	341.4	17.
101.4	74.3	5.2	4.9	7.6	3.0	—	—	88.6	66.4	522.9	482.5	295.7	266.7	72.3	64.5	0.2	2.8	595.4	549.8	186.8	178.7	72.4	69.0	253.6	217.8	18.
42.2	*30.9*	*1.7*	*2.0*	*0.2*	*0.1*	—	—	*40.3*	*28.8*	*168.8*	*155.8*	*117.0*	*110.9*	*5.2*	*5.2*	—	—	*174.0*	*161.0*	*45.4*	*48.4*	*16.6*	*12.8*	*93.7*	*81.7*	
30.6	25.1	0.5	0.6	1.9	1.8	—	—	28.2	22.7	216.3	211.0	151.2	150.6	47.5	51.4	0.1	0.2	263.9	262.6	109.4	115.0	33.2	28.7	99.7	97.0	19.
182.3	134.6	12.1	8.2	23.1	24.4	—	—	147.1	102.0	1120.8	1027.4	619.0	596.2	309.7	189.7	2.5	5.4	1433.0	1222.5	652.3	541.5	154.5	133.3	457.9	370.5	20.
32.9	79.5	3.3	30.0	—	—	—	—	29.6	49.5	—74.6	—118.3	740.4	725.0	74.1	118.3	0.5	—	—	—	508.1	589.6	190.5	124.5	181.9	165.9	
2724.3	2181.4	165.7	193.2	1234.9	839.0	—	—	1323.7	1149.2	12937.9	11075.8	7694.4	6705.6	5652.5	4464.0	86.4	112.3	18676.8 [i]	15652.1 [i]	10872.6	8850.9	3028.8	2720.4	4775.4	4080.8	TOTAL EXPORTS

[d] Excluding ships' stores.   [e] Including ships' stores.   [f] Excluding bunkers.   [g] Including bunkers.   [h] Exports to unspecified destination are not available by commodity groups. For further details see " Sources and methods ".

TABLE II

Output targets for major industrial products in 1965 under long-term plans

CZECHOSLOVAKIA

Product	Unit	1951	1958	1965
Fuels and electric power				
Coal (hard coal equivalent)	Million tons	31.2	51.1	68.3
Hard coal (gross)		18.39 [a]	27.18	35.5
Brown coal		29.0	54.31	73.20
Lignite		1.17	2.53	4.18
Coke		5.47	7.37	11.63
Crude petroleum		0.07	0.11	0.12
Natural gas	Billion cu. m.	0.05	1.25	2.69
Electric power	Million MWh	10.30	19.62	37.67
Motor fuels	Million tons	0.71 [b]	1.26	2.80
Ores, minerals, metals				
Iron ore	Million tons	1.76	2.79	4.3
Pig iron		2.06	3.77	7.65
Crude steel		3.46	5.51	10.52
Rolled products (excluding tubes)		2.26	3.76	7.32
Steel tubes	Thousand tons	343	521	882
Chemicals, fertilizers, etc.				
Nitrogenous fertilizer (N)	Thousand tons pure content	36.16	108.1	292.5
Phosphorus fertilizer (P_2O_5)		57.34	117.4	285.0
Artificial fibres		36.5 [b]	54.87	105.65
Plastics (excluding synthetic rubber)		23.60 [c]	47.79	183.90
Building materials				
Cement	Million tons	2.06	4.11	8.60
Prefabricated building parts	Million cu. m.	0.28 [b]	1.07	3.43
Plate glass	Million sq. m.	16.25	24.29	41.38
Timber, paper, miscellaneous				
Sawnwood—coniferous	Million cu. m.	3.69	3.78	2.75
other	Thousand cu. m.	342	474	440
Cellulose	Thousand tons	271	365	560
Industrial equipment				
Steam turbines	MW	540	863	1 990
Hydro turbines		63	101	600
Power transformers above 25 KVA	Thousand MVA	2.75	2.69	6.00
Rolling-mill equipment	Thousand tons	5.6	20.5	59.2
Other metallurgical equipment		26.1	34.8	125.1
Industrial equipment *(concluded)*				
Metal-cutting machine tools	Thousand	14.8	27.5	63.0
Chemical equipment	Million Kčs [e]	327.5 [c]	409.2	2 268
	Thousand tons	31.5 [f]	41.1	255.9
Equipment for building materials industries	Million Kčs [e]	..	151.1	760
Construction equipment		79 [c]	184	482
Sugar-refining equipment	Thousand tons	..	17.4 [d]	33
Steam boilers	Thousand tons of steam per hour	4.13	4.97	9.2
Roller bearings	Million	6.88	27.15	65.0
Agricultural machinery				
Tractors	Thousand	9.47	24.60	43.10
All agricultural machinery	Million Kčs [e]	165	829	1 380
Transport equipment				
Electric locomotives	Unit	21	53	200
Diesel locomotives		—	59	590
Motor trucks	Thousand	11.53	14.05	19.80
Motor-cars		17.1	43.44	110.0
Fabrics and shoes				
Cotton fabrics	Million metres	378.6	419.8	492
Woollen fabrics		46.6	42.64	52.5
Silk fabrics		43.1	56.7	80.8
Footwear	Million pairs	57.0 [b]	80.22	100.98
Metal-made consumers' goods				
Television sets	Thousand	—	133.55	400.0
Domestic sewing machines		67 [b]	109	238
Domestic refrigerators		8.5	79.93	265.0
Furniture (including non-metal)	Billion Kčs [e]	0.85	1.77	2.50
Processed food				
Meat	Thousand tons	298.7	415.3	583.1
Lard		29.5	59.0	78.2
Butter		36.9	58.1	80.0
Sugar		770.6	855.7	1 202.7
Edible vegetable fats		72.8	102.4	112.7

Sources : Statistical yearbooks 1957 to 1959; *Rudé Právo*, 29 and 30 September, 17 and 21 October, 1959; *Plánované Hospodářství*, No. 11, 1959; and *Nová Mysl*, No. 1, 1960.

[a] Net.
[b] 1953.
[c] 1955.
[d] Plan 1960.
[e] At July 1954 prices.
[f] 1952.

EASTERN GERMANY

Product	Unit	1951	1958	1965
Fuels and electric power				
Coal (hard coal equivalent)	Million tons	48.6	67.4	87.0
Brown coal		151.3	215.0	278.0
Electric power	Million MWh	21.5	34.9	63.0
Motor fuels	Thousand tons	..	2 030	4 200
Ores, minerals, metals				
Pig iron		341.6	1 775	2 150
Crude steel		1 551.8	3 043	4 630
Rolled products		1 113	2 301	3 500
of which : Steel tubes		36.5	120	300
Chemicals, fertilizers, etc.				
Sulphuric acid	Thousand tons SO_3	288.8	531	1 005
Calcium carbide	Thousand tons	664	831	1 180
Nitrogenous fertilizers (N)	Thousand tons pure content	252	320	386
Phosphate fertilizers (P_2O_5)		33	136	284
Potassium fertilizers (K_2O)		1 409	1 528	2 128
Synthetic fibres	Ton	899 [a]	6 700	38 900
Plastics	Thousand tons	0.7 [b]	93	311
Synthetic rubber		50.3	84	105
Building materials				
Cement		1 656	3 558	7 975
Gravel		1 658	3 165	7 411
Prefabricated concrete products		397	4 946	15 635
Plate glass	Million sq. m.	13.5	14.7	25.0
Industrial equipment				
Steam turbines	MW	..	505	1 606
High efficiency transformers	MVA	..	5 646	13 716
Metal-cutting machine tools	Million DM [c]	233.8	444	1 128
Chemical equipment		193	201	506
Pipelines	Thousand tons	24.5	72	172
Light industries machinery	Million DM [c]	80.0	269	650
Food-processing machinery		117.7	185	412
Earth-moving equipment		..	171	349
Industrial equipment *(concluded)*				
Steel constructions	Thousand tons	222	407	767
Roller bearings	Million	..	22.6	60.0
Measuring, steering and regulating instruments	Million DM [c]	..	163	575
Transport equipment				
Diesel-electric locomotives	Unit	—	—	183
Cold-storage wagons		—	180	1 130
Passenger coaches		598	976	1 260
Motor cars	Thousand	11.1	38.4	108
Agricultural machinery	Million DM [c]	81.9	368	829
Fabrics, etc.				
Cotton fabrics	Million sq. m.	122	337	555
Woollen fabrics		23.6	35	94
Woollen knitted goods	Million	—	5.4	17.8
" Dederon " fabrics	Million sq. m.	—	4.3	30
Silk stockings (" dederon ")	Million pairs	—	34.7	79.0
Rugs and carpets	Million sq. m.	3.0	6.8	17.4
Metal-made consumers' goods, etc.				
Television sets	Thousand	—	180	760
Domestic washing machines		..	49.8	212
Domestic refrigerators		1.52	51.8	371
Motor cycles		23.9	81.2	115
China	Thousand tons	13.5	18.0	34.7
Processed food				
Meat		198.3 [d]	615	895
Butter		85.5	162	241
Cheese		8.5	35	67
Fish catch		37.5	86	215
Sugar		739	786	1 022
Frozen fruit and vegetables		..	10	24
Cacao products		..	25	64
Non-alcoholic drinks	Thousand hl.	1 210	2 820	5 790

Sources : Statistical yearbooks 1955-1958; and *Gesetzblatt der Demokratischen Republik*, No. 56, 1959.

[a] 1951 perlon only, corresponding figure for 1958 is 4,736 tons.

[b] 1951 polystyrol only, corresponding figure for 1958 is 3,664 tons.

[c] At current prices.

[d] Including preserves, corresponding figure for 1958 is 605.5 thousand tons.

HUNGARY

Product	Unit	1951	1958	1965
Fuels and electric power				
Coal (hard coal equivalent)	Million tons	8.3	11.6	13.3-14.0
Coal (ton for ton)		15.3	24.2	27-29
Crude petroleum		0.50	0.83	1.7-1.8
Natural gas	Billion cu. m.	0.11 *	0.11	0.32
Electric power	Million MWh	3.51	6.48	10.0
Ores, minerals, metals				
Pig iron	Million tons	0.53	1.08	1.6
Crude steel		1.29	1.63	2.4
Aluminium		21.1	39.5	53-55
Alumina		87.4	170	250
Chemicals, fertilizers, etc.				
Nitrogenous fertilizer (N)	Thousand tons pure content	14	32	128-160
Chemicals, fertilizers, etc. *(concluded)*				
Phosphorus fertilizer (P_2O_5)	Thousand tons pure content	25	36	116
Building materials, timber, miscellaneous				
Cement	Million tons	0.95	1.30	2.2-2.4
Cellulose	Thousand tons	18.9	21.1	65
Paper		91.4	110	220
Processed foods				
Raw meat [a]		66 [b]	173	260-270
Salami		1.76	4.56	7.1-7.3
Liquid milk	Million litres	212	220	350
Butter	Thousand tons	6.8	16.9	21.3-21.6
Refined and raw sugar		253	269	415-430
Canned fruits		33.5	49.2	75

Sources : Statisztikai évkönyv, 1949-1955, pp. 74-87; *Statisztikai havi közlemények*, No. 9, 1959, pp. 20-30, 44, 57; and *Társadalmi Szemle*, No. 10, 1959, pp. 101, 117-123.

[a] Including poultry, slaughter weight.

[b] Production of ministry controlled industry only.

TABLE II (*concluded*)

Output targets for major industrial products in 1965 under long-term plans

POLAND

Product	Unit	1951	1958	1965
Fuels and electric power				
Coal (hard coal equivalent)	Million tons	83.5	97.2	125
Hard coal		82.0	95.0	113
Brown coal		4.9	7.5	27
Crude petroleum	Thousand tons	181	175	180
Natural gas	Million cu. m.	277	384	1 000
Electric power	Million MWh	10.5	24.0	43.5
Ores, minerals, metals				
Iron ore, crude (excluding pyrites)	Thousand tons	769	1 962	2 810
Pig iron [a]		1 616	3 864	7 400
Crude steel		2 787	5 663	9 000
Rolled products		1 961	3 701	6 050
Zinc		118	163	215-230
Refined lead		23.1	35.8	52
Aluminium (smelted)		—	22.4	75
Chemicals, fertilizers, etc.				
Sulphuric acid	Thous. tons H_2SO_4	277	573	1 180
Calcined soda (98 per cent)	Thousand tons	161	369	660
Caustic soda (96 per cent)		70.9	151	255
Nitrogenous fertilizers (N)	Thousand tons pure content	79.8	228	480
Phosphorus fertilizers (P_2O_5)		80.5	154	360
Artificial silk yarn	Thousand tons	10.5	18.3	31
Cut fibres		15.4	42.2	50
Steelon	Ton	76	2 274	12 000
Plastics and products	Thousand tons	1.6	28.8	164
Synthetic rubber		—	—	50
Building materials				
Cement		2 692	5 058	10 250
Bricks	Million	1 681	3 000	5 769
Burned tiles		88.7	118	261
Window glass (2 mm)	Million sq. m.	12.8	17.8	37
Timber and miscellaneous				
Sawnwood	Thousand cu. m.	5 215	6 836	5 032
Cellulose	Thousand tons	150	236	382
Paper		316	432	623
Industrial equipment				
Steam turbines	MW	0.5 [b]	53.4	500
Transformers above 20 KVA	MVA	1 513	2 136	5 300
Mining machinery	Million zlotys in 1956 prices	. .	1 402	1 855
	Thousand tons	49.3	128	. .
Chemical equipment		10.5	31.5	59
Textile machinery	Million zlotys in 1956 prices	. .	367.2	1 244
	Thousand tons	3.5	6.8	. .

Product	Unit	1951	1958	1965
Industrial equipment (*concluded*)				
Food processing equipment	Thousand tons	2.5	19.0	38
Building and construction equipment		15.9 [c]	34.3	51
Agricultural machinery				
Tractors	Thousand	4.2	4.4	20
Other	Million zlotys in 1956 prices	. .	1 321.8	2 200
	Thousand tons	47.7	151	. .
Transport equipment				
Railway carriages				
of which : Passenger [d]	Unit	280	597	815
Goods wagons [d]	Thousand	12.2	9.8	15
Motor trucks		2.6	10.3	35
Motor buses		—	0.7	3.7
Motor cars		0.1	11.5	22.5
Ships (sea-going)	Thousand DWT	4	175	450
Fabrics and shoes				
Cotton fabrics	Million metres	468	609	790
Woollen fabrics		60.9	78.1	101.3
Silk fabrics		66.0	97.4	140.6
Socks and stockings	Million pairs	. .	102.7	140.5
Leather shoes		17.8	34.6	48.9
Rubber shoes		17.8	23.1	23.1
Other shoes		5.9	17.1	25.2
Metal-made consumers' goods				
Radio sets	Thousand	156	790	1 100
Television sets		—	57.1	440
Domestic sewing machines		0.15	163	395
Domestic washing machines		0.05	225	600
Domestic refrigerators		—	23.4	240
Bicycles [e]		110	310	750
Motor cycles		17.8	84.9	145
Furniture (including non-metal)	Million zlotys in 1956 prices	. .	4 396	8 192
Processed food				
Carcase meat [f]	Thousand tons	539	1 033	1 600
Bacon		38.8	51.1	56
Canned meat	Thousand tons (net weight)	22.0	38.2	73
Milk	Million litres	533	853	1 300
Butter	Thousand tons	46.3	88.0	165
Refined sugar		858	1 095	1 550

Sources: Statistical yearbook 1959; *Trybuna Ludu*, 22 March 1959; and plan documents.

[a] In terms of open hearth.

[b] 1950.

[d] Excluding rolling stock for narrow-gauge railways.

[e] Excluding children's bicycles.

SOVIET UNION

Product	Unit	1951	1958	1965
Fuels and electric power				
Coal (hard coal equivalent) [a]	Million tons	215.9	365.2	439.2
Coal (ton for ton)		281.9	495.8	600-612
Crude petroleum		42.3	113.2	230-240
Natural gas	Billion cu. m.	6.2	28.1	150
Electric power	Million MWh	104.0	233.4	500-520
Ores, minerals, metals				
Iron ore [b]	Million tons	44.9	88.8	150-160
Pig iron		21.9	39.6	65-70
Crude steel		31.4	54.9	86-91
Rolled steel		24.0	42.9	65-70
Copper	Thousand tons	334 *	. .	[c]
Aluminium		220 *	. .	[d]
Chemicals, fertilizers, etc.				
Artificial fertilizers [e]	Million tons gross weight	5.9	12.4	35.0
Artificial and synthetic fibres	Thousand tons	35.4	166.6	666
Plastics		75 [f]	. .	[g]
Ethyl alcohol	Million dcl.	81.0	163.4	202.8
Building materials				
Cement	Million tons	12.0	33.3	75-81
Prefabricated reinforced concrete structures and parts	Million cu. m.	1.3 [c]	18.9	42-45
Roofing slates	Million slates	690	239	6 000
Soft roofing	Million sq. m.	317	648	1 300
Window glass		67.7	132.9	220
Timber products				
Lumber haulage	Million cu. m.	184.5	252	. .
of which : excluding that hauled by collective farms and small enterprises		. .	225	275-280
Sawnwood		76	87	. .
of which : Planned industry		. .	69.2	92-95
Cellulose	Million tons	. .	2.1	4.8
of which : Viscose	Thousand tons	. .	127	580
Paper	Million tons	1.3	2.2	3.5
Cardboard		0.3	0.7	2.8
Industrial equipment				
Steam and gas turbines	Thousand MW	2.7	6.6	18.7-20.4
Hydro turbines		0.5		
Generators for turbines		1.9	5.2	17.5-18.4
Electric motors (alternating current)		7.3	15.0	32-34
Rolling mill equipment	Thousand tons	66.1 [f]	86.0	200-220
Metal-cutting machine tools	Thousand	71.2	138.6	190-200
Industrial equipment (*concluded*)				
Forging and pressing equipment (excluding manual implements)	Thousand	7.7 [f]	25.0	36.2
Automatic and semi-automatic production lines	Set	. .	130	280-300
Chemical equipment	Thousand tons	60	. .	[h]
Textile spinning machinery	Thousand	1.6	1.1	[i]
Textile looms		7.2	14.4	[i]
Transport equipment				
Electric locomotives	Unit	113	344	2250-2700
Diesel locomotives		76	712	
Motor trucks	Thousand	229.8	389	750-856
Motor buses		5.3		
Motor cars		53.6	122	
Fabrics and footwear				
Cotton fabrics	Billion metres	4.8	5.8	7.7-8.0
Woollen fabrics	Million metres	176.0	302.6	500
Linen fabrics		313.5	481.2	635
Silk fabrics		174.3	844.8	1 485
Hosiery	Million pairs	472.6 [c]	887.2	1 250
Leather footwear		239.2	356	515
Metal-made consumers' goods				
Watches	Million	9.6	24.8	35.5
of which : Wrist watches		2.3	15.1	25.0
Radios, radiograms and television sets	Thousand	1 259	4 880	9 302
of which : Television sets		25.3	1 000	3 325
Domestic sewing machines		668.0	2 686	4 550
Motor cycles and motor scooters		125	400	800
Bicycles		1 157	3 700	. .
of which : Power-assisted bicycles		. .	26	750
Domestic washing machines		1.9	538	2 570
Domestic refrigerators		15.0	360	1 450
Furniture (including non-metal furniture)	Million roubles	2 207 [f]	7 600	18 000
Processed foods				
Meat and meat products	Thousand tons	1 715	3 365	6 130 [j]
Fish		2 140	2 900	4 600
Butter [k]		355	659	1 006
Milk products (in milk equivalent)	Million tons			
Granulated sugar	Thousand tons	1.6	6.0	13.5
Vegetable oils		2 979	5 434	9 250-10 000
of which : from materials procured by the State		919 [f]	1 466	. .
		. .	1 225	1 975

Sources : Plan Directives; *Narodnoe khozyaistvo SSSR v 1958 godu;* and *Promyshlennost SSSR.*

[a] Coal in tons of 7,000 Mcal. equivalent, excluding loss during enrichment : A. Grusho, E. Shteingauz, *Planovoe khozyaistvo*, No. 7, 1959.

[b] In terms of dressed ore (65 per cent of ore).

[c] 90 per cent rise in production over the 1958 level.

[d] 180-200 per cent rise in production over the 1958 level.

[e] Gross weight in the following standard units : nitrogenous fertilizer in terms of sulphate of ammonia; phosphorus fertilizer 19 per cent P_2O_5 content ; potash fertilizer 41.6 per cent K_2O content.

[f] 1950.

[g] Output had risen to 206,000 tons by 1956. Between 1958 and 1965 a 600 per cent increase is planned.

[h] The value of output is planned to rise from 1.1 billion roubles in 1958 to 3.5-3.7 billion in 1965.

[i] The value of output of all textile machinery is planned to rise from 1.1 billion roubles in 1958 to 2.5 billion in 1965.

[j] Slaughter weight. The coverage of the data varies from 1958 to 1965, and the 1958 figure corresponding to the plan appears to be 2,866 thousand tons.

[k] Excluding production in collective farms and output for self-consumption.

Table III a

Austria — Revenue and expenditure of general government

Billions of schillings

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	15.1	20.5	25.6	28.2	29.9	33.4	38.0	43.4	45.5
Direct taxes on households, etc.	5.1	6.6	8.2	9.6	9.2	9.4	10.6	12.5	12.6
Social security contributions[a]	3.0	4.1	4.6	4.8	5.3	6.6	7.7	8.4	9.2
Direct taxes on corporations	1.0	1.2	1.7	1.9	2.0	1.9	2.3	2.8	3.0
Indirect taxes	5.4	7.6	9.9	10.5	11.7	13.7	15.1	16.7	17.6
Income from property and entrepreneurship	0.6	1.0	1.2	1.4	1.7	1.7	2.3	2.8	3.1
Current transfers from abroad (net)	—	—	—	—	—	0.1	—	0.2	—
2. Current transfers from general government	5.6	8.9	11.0	11.1	11.9	13.3	15.4	17.6	19.6
Interest on public debt	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.7	0.8
Subsidies	0.9	1.7	2.1	1.5	1.6	1.5	2.1	2.1	2.3
Social security benefits[a]	1.9	2.7	3.4	3.6	4.1	4.8	5.3	6.3	7.0
Other current transfers (net)	2.6	4.3	5.3	5.8	5.9	6.6	7.5	8.5	9.5
3. Disposable income (1−2)	9.5	11.6	14.6	17.1	18.0	20.1	22.6	25.8	25.9
4. Public consumption	5.5	8.1	9.4	9.8	10.5	12.2	14.4	17.2	18.1
Civil	5.1	7.5	8.9	9.4	10.5	12.0	13.3	15.5	16.1
Military[b]	0.4	0.6	0.5	0.4	—	0.2	1.1	1.7	2.0
5. Public saving (3−4)	4.0	3.5	5.2	7.3	7.5	7.9	8.2	8.6	7.8
6. Gross capital formation	1.8	2.7	2.7	2.9	3.3	4.0	4.3	4.6	5.4
7. Savings surplus or deficiency (5−6)	2.2	0.8	2.5	4.4	4.2	3.9	3.9	4.0	2.4
8. Capital transfers to general government	2.2	3.2	1.6	0.9	0.8	—	—	—	—
From other sectors (net)	—	—	—	—	—	—	—	—	—
From abroad (net)	2.2	3.2	1.6	0.9	0.8	—	—	—	—
9. Capital transfers from general government	1.4	1.0	1.0	1.2	1.1	1.8	1.9	2.0	2.6
To other sectors (net)	1.4	1.0	1.0	1.2	1.1	1.8	1.4	1.2	1.7
To abroad (net)	—	—	—	—	—	—	0.5	0.8	0.9
10. Net change in financial assets (7+8−9)	3.0	3.0	3.1	4.1	3.9	2.1	2.0	2.0	−0.2
Gross national product (at market prices)	49.6	66.4	76.8	77.6	87.5	100.4	110.6	121.8	126.7

Sources : Direct communication from Austria; and *UN Yearbook of National Accounts Statistics 1957* and *1958*.

[a] Figures for 1950 to 1952 are partly estimated.

[b] Until 1954 the figures refer to occupation costs.

Table III b

Austria — Revenue and expenditure of central government (including social security)[a]

Billions of schillings

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	11.0	15.2	19.1	20.6	22.2	25.4	28.6	32.3	33.8
Direct taxes on households, etc.	7.7	10.7	13.9	5.9	5.8	5.9	6.6	7.6	7.5
Direct taxes on corporations				1.5	1.6	1.4	1.7	2.0	2.1
Indirect taxes				7.7	8.7	10.4	11.3	12.5	13.0
Social security contributions	3.0	4.1	4.6	4.8	5.3	6.6	7.7	8.4	9.2
Income from property and entrepreneurship	0.3	0.4	0.6	0.7	0.8	1.0	1.3	1.6	2.0
Current transfers from abroad (net)	—	—	—	—	—	0.1	—	0.2	—
2. Current transfers from central government	5.0	8.3	10.2	10.3	10.9	12.3	14.1	16.0	18.0
Interest on public debt	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.6
Subsidies	0.9	1.6	2.0	1.5	1.5	1.4	1.9	1.9	2.1
Social security benefits	1.9	2.7	3.4	3.6	4.1	4.8	5.4	6.3	7.1
Other current transfers to private sector (net)	2.3	3.9	4.7	5.1	5.1	5.8	6.5	7.4	8.3
Current transfers to local authorities (net)	−0.2	—	—	—	—	—	−0.1	−0.1	−0.1
3. Disposable income (1−2)	6.0	6.9	8.9	10.3	11.3	13.1	14.5	16.3	15.8
4. Consumption	4.0	5.8	6.7	6.8	7.1	8.1	9.8	11.8	12.4
Civil	3.6	5.2	6.2	6.4	7.1	7.9	8.7	10.1	10.4
Military[b]	0.4	0.6	0.5	0.4	—	0.2	1.1	1.7	2.0
5. Saving (3−4)	2.0	1.1	2.2	3.5	4.2	5.0	4.7	4.5	3.4
6. Gross capital formation	0.4	0.6	0.5	0.6	0.8	1.4	1.5	1.6	2.1
7. Savings surplus or deficiency (5−6)	1.6	0.5	1.7	2.9	3.4	3.6	3.2	2.9	1.3
8. Capital transfers to central government	2.2	3.2	1.6	0.9	0.8	—	—	—	—
From other sectors	—	—	—	—	—	—	—	—	—
From abroad (net)	2.2	3.2	1.6	0.9	0.8	—	—	—	—
9. Capital transfers from central government	1.1	0.8	0.6	0.8	0.8	1.4	1.8	1.8	2.5
To other sectors (net)	1.1	0.8	0.6	0.8	0.8	1.3	1.0	0.9	1.2
To local authorities (net)	—	—	—	—	—	0.1	0.3	0.1	0.4
To abroad (net)	—	—	—	—	—	—	0.5	0.8	0.9
10. Net change in financial assets (7+8−9)	2.7	2.9	2.7	3.0	3.4	2.2	1.4	1.1	−1.2

Source : Direct communication from Austria.

[a] Social security is not part of central government in Austria, but has been included for reasons of comparability. Figures for 1950 to 1952 are partly estimated.

[b] Until 1954 the figures refer to occupation costs.

TABLE IV

Belgium: Revenue and expenditure of general government

Billions of francs

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	79.6	78.8	81.8	96.9	100.1	100.3	101.9	107.5	117.6	127.8	129.0
Direct taxes on households, etc.	17.7	18.4	19.3	24.0	22.9	21.7	23.2	22.6	24.7	28.0	26.8
Social security contributions	19.2	19.2	19.7	22.0	23.9	26.9	25.6	27.6	30.4	33.7	35.3
Direct taxes on corporations	6.9	7.1	7.3	10.5	10.3	9.1	8.9	9.2	9.7	11.2	11.6
Indirect taxes	32.6	31.3	32.6	36.6	39.8	39.2	40.7	44.8	49.2	51.5	52.3
Income from property and entrepreneurship	3.0	2.8	2.8	2.9	2.8	3.2	3.3	3.2	3.5	3.3	3.0
Current transfers from abroad	0.2	—	0.1	0.9	0.4	0.2	0.2	0.1	0.1	0.1	—
2. Current transfers from general government	46.2	45.3	46.2	49.2	53.6	53.8	56.2	57.3	62.6	64.3	76.3
Interest on public debt	6.2	6.8	7.5	7.6	8.0	8.5	8.4	9.3	10.1	11.0	11.9
Subsidies	8.1	4.3	4.0	5.2	4.4	3.8	4.8	5.4	7.5	7.3	11.1
Social security benefits	20.3	23.6	26.1	27.1	31.3	32.4	34.2	34.4	35.5	37.4	43.8
Other current transfers	11.6	10.6	8.6	9.3	9.9	9.1	8.8	8.2	9.5	8.6	9.5
3. Disposable income (1−2)	33.4	33.5	35.6	47.7	46.5	46.5	45.7	50.2	55.0	63.5	52.7
4. Public consumption	29.6	33.2	35.8	44.1	52.8	54.8	55.8	53.0	55.6	58.0	61.9
Civil	..	25.2	27.3	30.8	33.7	35.1	35.7	36.5	38.2	39.6	..
Military[a]	..	8.0	8.5	13.3	19.1	19.7	20.1	16.5	17.4	18.4	..
5. Public savings (3−4)	3.8	−0.3	−0.2	3.6	−6.3	−8.3	−10.1	−2.8	−0.6	5.5	−9.2
6. Gross capital formation	4.2	5.3	6.9	7.9	6.8	7.1	6.6	8.3	9.7	10.0	8.9
7. Savings surplus or deficiency (5−6)	−0.4	−5.0	−7.1	−4.3	−13.1	−15.4	−16.7	−11.1	−10.3	−4.5	−18.1
8. Capital transfers to general government	..	..	..	..	..	..	..	..	..	..	..
From other sectors	..	..	..	..	..	..	..	..	..	..	..
From abroad	..	..	..	..	..	..	..	..	..	..	..
9. Capital transfers from general government	..	..	..	..	..	..	..	..	..	..	..
To other sectors	..	..	..	..	..	..	..	..	..	..	..
To abroad	..	..	..	..	..	..	..	..	..	..	..
10. Net change in financial assets[b] (7+8−9)	−0.4	−5.0	−7.1	−4.3	−13.1	−15.4	−16.7	−11.1	−10.3	−4.5	−18.1
Gross national product (at market prices)	338.2	354.6	365.8	422.9	433.7	440.1	460.8	483.9	522.6	560.8	559.9

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, 1960.

[a] Unrevised figures. Civil consumption obtained by deduction.

[b] Excluding capital transfers.

TABLE V

Denmark — Revenue and expenditure of general government

Millions of kroner

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
1. Tax receipts and other current revenue	4 301	4 348	4 600	5 232	5 780	6 380	6 782	7 378	7 957	..
Direct taxes on households, etc.	1 792	1 738	1 712	2 058	2 311	2 502	2 647	2 883	3 127	3 450
Social security contributions	248	259	281	313	338	369	382	392	401	440
Direct taxes on corporations	182	185	238	301	380	386	389	395	415	440
Indirect taxes	1 855	1 919	2 062	2 264	2 412	2 712	2 919	3 237	3 494	3 690
Income from property and entrepreneurship	224	247	307	296	339	411	445	471	520	..
Current transfers from abroad	—	—	—	—	—	—	—	—	—	—
2. Current transfers from general government	1 545	1 650	1 549	1 845	2 079	2 141	2 111	2 353	2 547	..
Interest on public debt	219	228	243	259	304	348	363	396	426	..
Subsidies	334	247	154	168	218	178	109	76	83	80
Social security benefits	992	1 175	1 152	1 418	1 557	1 615	1 639	1 881	2 038	..
Other current transfers										
3. Disposable income (1−2)	2 756	2 698	3 051	3 387	3 701	4 239	4 671	5 025	5 410	..
4. Public consumption	1 964	2 057	2 203	2 625	2 959	3 235	3 541	3 732	3 986	4 215
Civil	1 636	1 713	1 847	2 037	2 250	2 384	2 572	2 801	(3 038)	(3 285)
Military	328	344	356	588	709	851	969	931	(948)	(930)
5. Public saving (3−4)	792	641	848	762	742	1 004	1 130	1 293	1 424	..
6. Gross capital formation	195	255	290	345	380	475	575	605	670	680
7. Savings surplus or deficiency (5−6)	597	386	558	417	362	529	555	688	754	..
8. Capital transfers to general government	107	517	491	458	81	218	47	80	71	73
From other sectors	31	33	35	37	37	38	42	38	46	48
From abroad	76	484	456	421	44	180	5	42	25	25
9. Capital transfers from general government	79	172	184	323	264	211	258	226	267	..
To other sectors	79	172	184	323	264	211	258	226	267	..
To abroad	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	625	731	865	552	179	536	344	542	558	..
Gross national product (at market prices)	17 372	18 654	21 454	23 181	24 487	26 419	27 669	28 643	30 781	32 887

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

TABLE VI

Finland — Revenue and expenditure of general government

Billions of marks

	1951	1952	1953	1954	1955	1956	1957	1958 prov.
1. Tax receipts and other current revenue	227.4	257.8	255.9	264.6	289.6	342.2	393.1	413.5
Direct taxes on households, etc.[a]	91.2	109.5	109.8	73.9	82.4	104.9	163.2	170.5
Direct taxes on corporations				30.5	36.4	33.6		
Social security contributions[b]	30.7	26.4	27.2	26.3	28.6	28.6	29.9	35.1
Indirect taxes[c]	109.7	119.4	107.4	116.3	119.7	151.2	171.5	171.8
Income from property and entrepreneurship[d]	9.9 [d]	12.8 [d]	13.4 [d]	19.5 [d]	24.3 [d]	25.7 [d]	30.7 [d]	38.6 [d]
Current transfers from abroad	−14.1	−10.3	−1.9	−1.9	−1.8	−1.8	−2.2	−2.5
2. Current transfers from general government	58.9	65.6	64.0	69.1	82.4	105.0	111.2	117.1
Interest on public debt[e]	— [e]	— [e]	— [e]	— [e]	— [e]	— [e]	— [e]	— [e]
Subsidies	18.1	15.6	8.1	14.1	23.1	42.9	32.0	32.9
Social security benefits	40.8	50.0	55.9	55.0	59.3	62.1	79.2	84.2
Other current transfers								
3. Disposable income (1−2)	168.5	192.2	191.9	195.5	207.2	237.2	281.9	296.4
4. Public consumption	74.5	85.2	92.3	95.5	113.0	133.5	145.4	159.7
Civil	..	..	..	..	..	..	..	..
Military	..	..	..	..	..	..	..	..
5. Public saving (3−4)	94.0	107.0	99.6	100.0	94.2	103.7	136.5	136.7
6. Gross capital formation	22.5	27.8	34.9	33.8	36.4	46.4	53.1	58.5
7. Savings surplus or deficiency (5−6)	71.5	79.2	64.7	66.2	57.8	57.3	83.4	78.2
8. Capital transfers to general government	—	—	—	—	—	—	—	—
From other sectors[f]	—	—	—	—	—	—	—	—
From abroad	—	—	—	—	—	—	—	—
9. Capital transfers from general government	..	..	26.6	22.8	20.8	23.1	27.3	31.5
To other sectors[g]	..	..	26.6	22.8	20.8	23.1	27.3	31.5
To abroad	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	..	..	38.1	43.4	37.0	34.2	56.1	46.7
Gross national product (at market prices)	726.9	740.3	750.6	821.0	909.2	1027.9	1109.1	1181.1

Sources : UN *Yearbook of National Accounts Statistics, 1958*, New York, 1959; Ministry of Finance, *Economic Survey* for years 1956 to 1959, Helsinki; Central Statistical Office: *Bulletin of Statistics*, Vol. 31, No. 10, 1956; Vol. 33, No. 9, 1958; and Vol. 34, No. 9, 1959.

[a] Including taxes on capital (mainly death and gift duties).

[b] Including other current transfers from private to public sector (social security contributions represent the main part).

[c] Including also the surplus of the State Railways and of the PTT, and the price equalization surcharges collected through the Price Equalization Fund.

[d] Net of interest on public debt.

[e] Deducted from income from property and entrepreneurship.

[f] Included under direct taxes.

[g] Investment in public enterprises.

TABLE VII

Western Germany: Revenue and expenditure of general government

Millions of DM

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	30 860	38 600	46 360	50 570	53 740	60 470	66 870	73 950	79 060
Direct taxes on households, etc.	5 690	7 220	9 520	10 790	11 010	11 560	12 890	13 020	13 350
Social security contributions	7 800	9 300	10 420	11 710	12 630	14 680	16 460	19 750	22 150
Direct taxes on corporations	2 770	3 570	4 150	4 570	4 900	5 020	5 760	6 840	7 340
Indirect taxes	13 090	17 180	20 300	21 700	23 060	26 100	28 550	30 880	32 600
Income from property and entrepreneurship	1 630	2 130	2 860	3 120	3 650	4 720	5 020	5 660	5 970
Current transfers from abroad	−120	−800	−890	−1 320	−1 510	−1 610	−1 810	−2 200	−2 350
2. Current transfers from general government	12 860	14 450	16 910	18 090	19 130	21 480	24 600	30 530	33 760
Interest on public debt	390	520	590	660	980	1 000	1 110	1 210	1 460
Subsidies	490	830	850	320	130	220	650	1 620	1 400
Social security benefits	11 980	13 100	15 470	17 110	18 020	20 260	22 840	27 700	30 900
Other current transfers									
3. Disposable income (1−2)	18 000	24 150	29 450	32 480	34 610	38 990	42 270	43 420	45 300
4. Public consumption	14 350	17 730	21 060	21 380	22 350	23 920	25 470	28 000	30 000
Civil	9 970	11 580	13 550	15 060	16 400	17 880	20 120	21 650	23 800
Military	4 380	6 150	7 510	6 320	5 950	6 040	5 350	6 350	6 200
5. Public savings (3−4)	3 650	6 420	8 390	11 100	12 260	15 070	16 800	15 420	15 300
6. Gross capital formation	(2 200)[a]	(3 000)[a]	3 500	4 100	4 400	5 500	6 100	6 500	6 900
7. Savings surplus or deficiency (5−6)	(1 450)	(3 420)	4 890	7 000	7 860	9 570	10 700	8 920	8 400
8. Capital transfers to general government	..	..	280	—	180	—	230	—	..
From other sectors	..	..	140	—	—	—	230	—	..
From abroad	..	..	140	—	180	—	—	—	..
9. Capital transfers from general government	..	..	—	440	1 090	100	130	550	..
To other sectors	..	..	—	430	1 090	30	—	260	..
To abroad	..	..	—	10	—	70	130	290	..
10. Net change in financial assets (7+8−9)	..	..	5 170	6 560	6 950	9 470	10 800	8 370	..
Gross national product (at market prices)	97 200	119 600	134 200	143 750	153 950	175 600	193 400	209 600	222 300

Sources : 1952-1958 : OEEC, *Statistics on Sources and Uses of Finance, 1948-1958*, 1960; 1950 and 1951: United Nations, *Yearbook of National Accounts Statistics 1957* and *1958*; and national statistics.

[a] Estimated on the basis of net capital formation.

TABLE VIII a

France — Revenue and expenditure of general government

Billions of francs

	1954	1955	1956	1957
1. Tax receipts and other current revenue	4 920	5 186	5 823	6 507
Direct taxes on households, etc.	469	459	560	692
Social security contributions	1 409	1 525	1 722	1 871
Direct taxes on corporations	297	320	394	460
Indirect taxes	2 655	2 811	3 077	3 462
Income from property and entrepreneurship	130	134	140	125
Current transfers from abroad	−40	−63	−70	−103
2. Current transfers from general government	2 223	2 464	2 795	3 208
Interest on public debt	207	201	239	291
Subsidies	215	295	350	390
Social security benefits	1 475	1 600	1 800	2 086
Other current transfers	326	368	406	441
3. Disposable income (1−2)	2 697	2 722	3 028	3 299
4. Public consumption	2 174	2 204	2 691	2 986
Civil	1 171	1 314	1 440	1 573
Military	1 003	890	1 251	1 413
5. Public saving (3−4)	523	518	337	313
6. Gross capital formation	276	317	351	372
7. Savings surplus or deficiency (5−6)	247	201	−14	−59
8. Capital transfers to general government	37	29	32	43
From other sectors	25	29	32	43
From abroad	12	—	—	—
9. Capital transfers from general government	511	568	566	569
To other sectors	511	552	552	530
To abroad	—	16	14	39
10. Net change in financial assets (7+8−9)	−227	−338	−548	−585
Gross national product (at market prices)	15 710	16 945	18 521	20 445

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

TABLE VIII b

France — Revenue and expenditure of central government (including social security)

Billions of francs

	1954	1955	1956	1957
1. Tax receipts and other current revenue	4 447	4 683	5 270	5 894
Direct taxes on households, etc.	416	401	495	622
Social security contributions	1 409	1 525	1 722	1 871
Direct taxes on corporations	297	320	394	460
Indirect taxes	2 253	2 387	2 611	2 943
Income from property and entrepreneurship	112	113	118	101
Current transfers from abroad	−40	−63	−70	−103
2. Current transfers from central government	2 048	2 265	2 561	2 953
Interest on public debt	186	171	202	244
Subsidies	196	274	328	368
Social security benefits	1 475	1 600	1 800	2 086
Other current transfers	191	220	231	255
3. Disposable income (1−2)	2 399	2 418	2 709	2 941
4. Consumption	1 747	1 723	2 167	2 414
Civil	744	833	916	1 001
Military[a]	1 003	890	1 251	1 413
5. Saving (3−4)	652	695	542	527
6. Gross capital formation	80	96	105	106
7. Savings surplus or deficiency (5−6)	572	599	437	421
8. Capital transfers to central government	37	29	32	43
From other sectors	25	29	32	43
From abroad	12	—	—	—
9. Capital transfers from central government	740	839	889	907
To local authorities	229	271	323	338
To other sectors	511	552	552	530
To abroad	—	16	14	39
10. Net change in financial assets (7+8−9)	−131	−211	−420	−443

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] It has been assumed that total military consumption is attributable to central government.

Table IX a

Greece — Revenue and expenditure of general government [a]

Millions of drachmas (new)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
1. Tax receipts and other current revenue	3 477	4 187	5 378	6 507	7 724	9 278	10 892	13 383	15 376	16 536
Direct taxes on households, etc.	538	519	817	1 478	1 579	1 903	1 332	1 312	1 602	1 468
Direct taxes on corporations							969	1 083	1 249	1 341
Social security contributions	402	595	786	1 039	1 488	1 526	1 891	2 515	2 886	3 094
Indirect taxes	2 287	2 885	3 488	3 824	4 388	5 463	6 303	7 498	8 710	9 643
Income from property and entrepreneurship	251	189	218	143	254	337	401	487	593	669
Current transfers from abroad	−1	−1	69	23	15	49	−4	488	336	321
2. Current transfers from general government	1 163	2 057	2 270	1 709	2 675	2 613	2 774	3 775	4 285	4 573
Interest on public debt	1	14	8	25	47	9	49	76	71	51
Subsidies	55	299	717	198	446	221	97	184	127	464
Social security benefits	386	482	609	885	1 548	1 742	1 965	2 338	2 740	4 058
Other current transfers	721	1 262	936	601	634	641	663	1 177	1 347	
3. Disposable income (1−2)	2 314	2 130	3 108	4 798	5 049	6 665	8 118	9 608	11 091	11 963
4. Public consumption	2 601	3 161	3 736	5 053	5 275	5 668	7 347	8 615	10 881	11 069
Civil	1 356	1 615	1 925	2 347	2 841	2 974	3 956	4 618	5 803	6 452
Military	1 245	1 546	1 811	2 706	2 434	2 694	3 391	3 997	5 078	4 617
5. Public saving (3−4)	−287	−1 031	−628	−255	−226	997	771	993	210	894
6. Gross capital formation	973	1 507	2 361	1 853	1 482	1 758	1 427	2 502	3 616	4 211
7. Savings surplus or deficiency (5−6)	−1 260	−2 538	−2 989	−2 108	−1 708	−761	−656	−1 509	−3 406	−3 317
8. Capital transfers to general government	1 989	3 145	4 464	4 503	1 881	1 311	1 858	1 976	2 351	870
From other sectors	50	120	121	125	—	92	121	156	236	195
From abroad	1 939	3 025	4 343	4 378	1 881	1 219	1 737	1 820	2 115	675
9. Capital transfers from general government	—	—	—	—	—	—	—	—	—	—
To other sectors	—	—	—	—	—	—	—	—	—	—
To abroad	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	729	607	1 475	2 395	173	550	1 202	467	−1 055	−2 447
Gross national product (at market prices)	18 220	24 504	28 764	34 425	36 074	48 504	56 110	64 921	76 177	82 511

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] 1948-1952; unrevised data.

Table IX b

Greece — Revenue and expenditure of central government (including social security)

Millions of drachmas (new)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
1. Tax receipts and other current revenue	3 049	3 570	4 723	5 858	6 961	8 190	9 817	12 314	14 155	..
Direct taxes on households, etc.	477	437	699	1 251	1 342	1 542	885	952	1 189	1 038
Direct taxes on corporations							969	1 083	1 249	1 341
Social security contributions	402	595	786	1 039	1 488	1 526	1 891	2 515	2 886	3 094
Indirect taxes	2 019	2 491	3 062	3 516	4 008	4 922	5 898	7 072	8 260	9 180
Income from property and entrepreneurship	152	48	107	29	108	151	178	204	235	..
Current transfers from abroad	−1	−1	69	23	15	49	−4	488	336	321
2. Current transfers from central government	1 153	2 047	2 290	1 659	2 618	2 509	2 651	3 619	4 036	..
Interest on public debt	1	14	8	25	47	9	49	76	71	51
Subsidies	55	299	717	198	446	221	97	184	127	464
Social security benefits	386	482	609	885	1 548	1 742	1 965	2 338	2 740	..
Other current transfers	711	1 252	956	551	577	537	540	1 021	1 098	..
3. Disposable income (1−2)	1 896	1 523	2 433	4 199	4 343	5 681	7 166	8 695	10 119	..
4. Consumption	2 238	2 678	3 214	4 584	4 740	5 066	6 469	7 565	9 515	9 699
Civil	993	1 132	1 403	1 878	2 306	2 372	3 078	3 568	4 437	5 082
Military [a]	1 245	1 546	1 811	2 706	2 434	2 694	3 391	3 997	5 078	4 617
5. Saving (3−4)	−342	−1 155	−781	−385	−397	615	697	1 130	604	..
6. Gross capital formation	..	..	..	..	..	..	857	1 537	2 285	..
7. Savings surplus or deficiency (5−6)	..	..	..	..	..	..	−160	−407	−1 681	..
8. Capital transfers to central government	1 989	3 145	4 464	4 503	1 881	1 311	1 858	1 976	2 351	870
From other sectors	50	120	121	125	—	92	121	156	236	195
From abroad	1 939	3 025	4 343	4 378	1 881	1 219	1 737	1 820	2 115	675
9. Capital transfers from central government	—	—	—	—	—	—	—	—	—	—
To other sectors	—	—	—	—	—	—	—	—	—	—
To abroad	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	..	..	..	..	..	..	1 698	1 569	670	..

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] It has been assumed that total military consumption is attributable to central government.

TABLE X a

Ireland — Revenue and expenditure of general government

Millions of pounds sterling

	1954	1955	1956	1957	1958 [a]
1. Tax receipts and other current revenue	123.1	129.0	137.3	143.4	148
Direct taxes on households, etc.	15.4	16.3	15.5	16.4	16
Social security contributions	5.3	5.4	5.7	5.9	6
Direct taxes on corporatons	11.0	11.7	11.7	11.6	12
Indirect taxes	79.5	82.9	91.3	95.0	98
Income from property and entrepreneurship	12.1	12.9	13.3	14.7	16
Current income from abroad	−0.2	−0.2	−0.2	−0.2	—
2. Current transfers from general government	52.4	55.6	58.9	62.2	61
Interest on public debt	10.2	11.8	13.0	14.3	15
Subsidies	11.3	12.1	12.4	10.8	10
Social security benefits	7.5	7.4	9.0	9.8	9
Other current transfers	23.4	24.3	24.5	27.3	27
3. Disposable income (1−2)	70.7	73.4	78.4	81.2	87
4. Public consumption	65.3	67.4	71.6	70.6	74
Civil	(57.2)	(59.4)	(63.7)	..	..
Military	(8.1)	(8.0)	(7.9)	..	..
5. Public saving (3−4)	5.4	6.0	6.8	10.6	13
6. Gross capital formation	13.2	14.4	14.3	11.6	12
7. Savings surplus or deficiency (5−6)	−7.8	−8.4	−7.5	−1.0	1
8. Capital transfers to general government	3.0	3.3	2.3	2.7	3
From other sectors	3.0	3.3	2.3	2.7	3
From abroad	—	—	—	—	—
9. Capital transfers from general government	15.4	15.2	16.4	15.4	13
To other sectors	15.4	15.2	16.4	13.3	13
To abroad	—	—	—	2.1	—
10. Net change in financial assets (7+8−9)	−20.2	−20.3	−21.6	−13.7	−9
Gross national product (at market prices)	512.6	533.0	539.3	567.1	582

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958,* Paris 1960.

[a] Provisional figures.

TABLE X b

Ireland — Revenue and expenditure of central government (including social security)

Millions of pounds sterling

	1954	1955	1956	1957	1958 [a]
1. Tax receipts and other current revenue	102.8	107.7	113.9	119.4	123
Direct taxes on households, etc.	15.4	16.3	15.5	16.4	16
Social security contributions	5.3	5.4	5.7	5.9	6
Direct taxes on corporations	11.0	11.7	11.7	11.6	12
Indirect taxes	61.2	63.8	70.2	73.7	76
Income from property and entrepreneurship	10.1	10.7	11.0	12.0	13
Current transfers from abroad	−0.2	−0.2	−0.2	−0.2	—
2. Current transfers from central government	62.7	65.9	70.5	73.7	72
Interest on public debt	6.0	7.0	7.4	8.2	8
Subsidies	11.2	12.0	12.3	10.7	10
Social security benefits	7.5	7.4	9.0	9.8	9
Current transfers to local government	14.6	15.2	17.3	17.7	18
Other current transfers	23.4	24.3	24.5	27.3	27
3. Disposable income (1−2)	40.1	41.8	43.4	45.7	51
4. Consumption	37.7	37.7	39.6	39.2	41
Civil	(29.6)	(29.7)	(31.7)	..	..
Military [b]	(8.1)	(8.0)	(7.9)	..	..
5. Saving (3−4)	2.4	4.1	3.8	6.5	10
6. Gross capital formation	3.0	3.3	3.7	3.4	4
7. Savings surplus or deficiency (5−6)	−0.6	0.8	0.1	3.1	6
8. Capital transfers to central government	3.0	3.3	2.3	2.7	3
From other sectors	3.0	3.3	2.3	2.7	3
From abroad	—	—	—	—	—
9. Capital transfers from central government	14.7	13.8	14.0	16.5	14
To local government	—	—	—	1.1	1
To other sectors	14.7	13.8	14.0	13.3	13
To abroad	—	—	—	2.1	—
10. Net change in financial assets (7+8−9)	−12.3	−9.7	−11.6	−10.7	−5

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958,* Paris 1960.

[a] Provisional figures.

[b] It has been assumed that total military expenditure is attributable to central government. The data on military consumption are unrevised; civil consumption has been derived as a residual.

TABLE XI a

Italy — Revenue and expenditure of general government

Billions of lire

	1955	1956	1957	1958
1. Tax receipts and other current revenue	3 742	4 267	4 579	4 907
Direct taxes on households, etc.	687	785	914	987
Direct taxes on corporations				
Social security contributions	1 086	1 251	1 335	1 470
Indirect taxes	1 814	2 059	2 158	2 250
Income from property and entrepreneurship	186	189	186	213
Current transfers from abroad	−31	−17	−14	−13
2. Current transfers from general government	1 645	1 996	2 116	2 274
Interest on public debt	240	272	272	257
Subsidies	158	199	218	201
Social security benefits	937	1 140	1 190	1 459
Other current transfers	310	385	436	357
3. Disposable income (1−2)	2 097	2 271	2 463	2 633
4. Public consumption	1 552	1 733	1 838	2 030
Civil [a]	1 001	1 149	1 227	1 404
Military [a]	551	584	611	626
5. Public saving (3−4)	545	538	625	603
6. Gross capital formation	278	283	294	304
7. Savings surplus or deficiency (5−6)	267	255	331	299
8. Capital transfers to general government	23	14	—	—
From other sectors	—	—	—	—
From abroad	23	14	—	—
9. Capital transfers from general government	299	263	308	341
To other sectors	299	263	308	341
To abroad	—	—	—	—
10. Net change in financial assets (7+8−9)	−9	6	23	−42
Gross national product (at market prices)	13 639	14 634	15 688	16 657

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] Defence expenditure on a cash basis; civil expenditure derived as a residual.

TABLE XI b

Italy — Revenue and expenditure of central government (including social security)

Billions of lire

	1955	1956	1957	1958
1 Tax receipts and other current revenue	3 265	3 790	3 969	4 362
Direct taxes on households, etc.	470	569	652	733
Direct taxes on corporations				
Social security contributions	1 086	1 251	1 335	1 470
Indirect taxes	1 656	1 900	1 911	2 069
Income from property and entrepreneurship	84	87	85	103
Current transfers from abroad	−31	−17	−14	−13
2. Current transfers from central government	1 735	2 074	2 103	2 337
Interest on public debt	208	233	224	202
Subsidies	145	185	202	179
Social security benefits	937	1 140	1 190	1 459
Current transfers to local authorities	135	131	51	140
Other current transfers	310	385	436	357
3. Disposable income (1−2)	1 530	1 716	1 866	2 025
4. Consumption	1 081	1 225	1 292	1 451
Civil [a]	530	641	681	825
Military [a, b]	551	584	611	626
5. Saving (3−4)	449	491	574	574
6. Gross capital formation	98	95	98	103
7. Savings surplus or deficiency (5−6)	351	396	476	471
8. Capital transfers to central government	23	14	—	—
From other sectors	—	—	—	—
From abroad	23	14	—	—
9. Capital transfers from central government	330	298	347	385
To local authorities	31	35	39	44
To other sectors	299	263	308	341
To abroad	—	—	—	—
10. Net change in financial assets (7+8−9)	44	112	129	86

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] Defence expenditure on a cash basis; civil consumption derived as a residual.

[b] It has been assumed that total military consumption is attributable to central government.

Table XII a

Luxembourg: Revenue and expenditure of general government

Millions of francs

	1952	1953	1954	1955	1956	1957
1. Tax receipts and other current revenue	6 170	6 001	5 401	6 090	6 561	7 305
Direct taxes on households, etc.	1 178	1 249	1 148	1 281	1 444	1 564
Social security contributions	1 268	1 331	1 380	1 526	1 644	1 747
Direct taxes on corporations	1 611	1 170	750	1 008	993	1 250
Indirect taxes	1 647	1 672	1 609	1 719	1 910	2 057
Income from property and entrepreneurship	499	613	522	563	577	696
Current transfers from abroad	−33	−34	−8	−7	−7	−9
2. Current transfers from general government	1 872	2 014	2 366	2 681	2 651	2 971
Interest on public debt	192	182	187	199	218	214
Subsidies	274	306	418	506	357	408
Social security benefits	1 221	1 332	1 573	1 690	1 752	1 950
Other current transfers	185	194	188	286	324	399
3. Disposable income (1−2)	4 298	3 987	3 035	3 409	3 910	4 334
4. Public consumption	2 227	2 342	2 352	2 423	2 297	2 477
Civil	1 877	1 935	1 837	1 957	1 856	2 084
Military	350	407	515	466	441	393
5. Public saving (3−4)	2 071	1 645	683	986	1 613	1 857
6. Gross capital formation	716	1 085	1 142	1 232	965	1 175
7. Savings surplus or deficiency (5−6)	1 355	560	−459	−246	648	682
8. Capital transfers to general government	103	106	62	94	29	6
From other sectors	35	2	9	4	2	—
From abroad	68	104	53	90	27	6
9. Capital transfers from general government	326	378	295	278	310	294
To other sectors	326	378	295	278	310	294
To abroad	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	1 132	288	−692	−430	367	394
Gross national product (at market prices)	17 945	16 563	16 981	18 448	20 296	21 935

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958,* 1960.

Table XII b

Luxembourg: Revenue and expenditure of central government (including social security)

Millions of francs

	1952	1953	1954	1955	1956	1957
1. Tax receipts and other current revenue	5 458	5 328	4 655	5 331	5 696	6 359
Direct taxes on households, etc.	1 112	1 180	942	1 077	1 213	1 321
Social security contributions	1 268	1 331	1 380	1 526	1 644	1 747
Direct taxes on corporations	1 601	1 160	740	988	970	1 233
Indirect taxes	1 230	1 336	1 279	1 401	1 509	1647
Income from property and entrepreneurship	280	355	322	346	367	420
Current transfers from abroad	−33	−34	−8	−7	−7	−9
2. Current transfers from central government	1 963	2 048	2 447	2 606	2 490	2 862
Interest on public debt	175	163	159	157	174	163
Subsidies	274	306	418	506	357	408
Social security benefits	1 221	1 332	1 573	1 690	1 752	1 950
Current transfers to local authorities	108	53	109	—	—	—
Other current transfers	185	194	188	253	207	341
3. Disposable income (1−2)	3 495	3 280	2 208	2 725	3 206	3 497
4. Consumption	1 705	1 814	1 887	1 810	1 736	1 825
Civil	1 355	1 407	1 372	1 344	1 295	1 432
Military [a]	350	407	515	466	441	393
5. Saving (3−4)	1 790	1 466	321	915	1 470	1 672
6. Gross capital formation	300	485	541	540	429	549
7. Savings surplus or deficiency (5−6)	1 490	981	−220	375	1 041	1 123
8. Capital transfers to central government	103	106	62	94	29	6
From other sectors	35	2	9	4	2	—
From abroad	68	104	53	90	27	6
9. Capital transfers from central government	400	452	412	377	418	412
To local authorities	74	74	117	99	108	118
To other sectors	326	378	295	278	310	294
To abroad	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	1 193	635	−570	92	652	717

Source : OEEC: *Statistics of Sources and Uses of Finance, 1948-1958,* 1960.

[a] The total of military consumption has been attributed to central government.

TABLE XIII a

Netherlands: Revenue and expenditure of general government

Millions of guilders

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	5 117	5 593	6 052	6 879	7 630	7 605	8 022	8 452	9 734	11 395	11 114
Direct taxes on households, etc.	1 585	1 700	1 669	1 869	2 205	2 103	2 139	2 090	2 708	3 105	3 164
Social security contributions	658	711	789	887	993	1 118	1 237	1 368	1 502	2 650	2 710
Direct taxes on corporations	557	654	758	890	1 239	1 016	868	1 070	1 361	1 340	1 000
Indirect taxes	1 949	2 093	2 385	2 786	2 633	2 785	3 127	3 274	3 448	3 5 0	3 460
Income from property and entrepreneurship	374	443	463	460	571	595	666	667	733	790	820
Current transfers from abroad	−6	−8	−12	−13	−11	−12	−15	−17	−18	−30	−40
2. Current transfers from general government	2 045	1 825	1 940	2 121	2 134	2 319	2 695	3 026	3 361	4 440	5 040
Interest on public debt	622	593	586	589	614	633	702	700	772	810	960
Subsidies	580	285	254	242	37	95	176	271	354	650	750
Social security benefits	586	670	740	846	923	1 021	1 115	1 247	1 329	2 330	2 570
Other current transfers	257	277	360	444	560	570	702	808	906	650	760
3. Disposable income (1−2)	3 072	3 768	4 112	4 758	5 496	5 286	5 327	5 426	6 373	6 955	6 074
4. Public consumption	2 114	2 134	2 380	2 856	3 133	3 414	3 879	4 337	4 913	5 310	5 240
Civil	1 467	1 491	1 641	1 838	1 939	2 115	2 359	2 720	3 065	3 520	3 640
Military	647	643	739	1 018	1 194	1 299	1 520	1 617	1 848	1 790	1 600
5. Public saving (3−4)	958	1 634	1 732	1 902	2 363	1 872	1 448	1 089	1 460	1 645	834
6. Gross capital formation	518	585	604	705	686	1 074	986	1 084	1 245	1 400	1 290
7. Savings surplus or deficiency (5−6)	440	1 049	1 128	1 197	1 677	798	462	5	215	245	−456
8. Capital transfers to general government	1 998	880	1 209	574	315	161	137	98	119	115	106
From other sectors	1 447	252	69	87	119	114	117	98	119	115	106
From abroad	551	628	1 140	487	196	47	20	—	—	—	—
9. Capital transfers from general government	—	—	218	272	386	351	384	754	548	460	400
To other sectors	—	—	218	272	386	351	384	691	436	370	330
To abroad	—	—	—	—	—	—	—	63	112	90	70
10. Net change in financial assets (7+8−9)	2 438	1 929	2 119	1 499	1 606	608	215	−651	−214	−100	−750
Gross national product (at market prices)	15101	17079	18948	21692	22729	24244	27036	30323	32722	35400	36390

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, 1960

TABLE XIII b

Netherlands: Revenue and expenditure of central government (including social security)

Millions of guilders

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	4 774	5 212	5 668	6 468	7 153	7 119	7 504	7 883	9 125	10 735	10 384
Direct taxes on households, etc.	1 581	1 696	1 665	1 865	2 201	2 099	2 135	2 086	2 704	3 105	3 164
Social security contributions	658	711	789	887	993	1 118	1 237	1 368	1 502	2 650	2 710
Direct taxes on corporations	557	654	758	890	1 239	1 016	868	1 070	1 361	1 340	1 000
Indirect taxes	1 837	1 976	2 270	2 662	2 509	2 654	2 993	3 135	3 300	3 380	3 290
Income from property and entrepreneurship	147	183	198	177	222	244	286	241	276	290	260
Current transfers from abroad	−6	−8	−12	−13	−11	−12	−15	−17	−18	−30	−40
2. Current transfers from central government	2 873	2 772	2 921	3 203	3 128	3 410	3 971	4 470	4 980	6 280	6 780
Interest on public debt	516	456	439	429	381	389	420	402	431	440	480
Subsidies	569	267	223	209	−8	42	89	163	241	550	630
Social security benefits	586	670	740	846	923	1 021	1 115	1 247	1 329	2 330	2 570
Current transfers to local government [b]	945	1 102	1 159	1 275	1 272	1 388	1 645	1 850	2 073	2 310	2 340
Other current transfers	257	277	360	444	560	570	702	808	906	650	760
3. Disposable income (1−2)	1 901	2 440	2 747	3 265	4 025	3 709	3 533	3 413	4 145	4 455	3 604
4. Consumption	1 220	1 177	1 319	1 674	1 900	2 072	2 379	2 583	2 913	3 000	2 810
Civil	573	534	580	656	706	773	859	966	1 065	1 210	1 210
Military [a]	647	643	739	1 018	1 194	1 299	1 520	1 617	1 848	1 790	1 600
5. Saving (3−4)	681	1 263	1 428	1 591	2 125	1 637	1 154	830	1 232	1 455	794
6. Gross capital formation	215	216	227	278	331	370	360	356	405	470	480
7. Savings surplus or deficiency (5−6)	466	1 047	1 201	1 313	1 794	1 267	794	474	827	985	314
8. Capital transfers to central government	1 918	783	1 209	574	315	161	137	98	119	115	106
From other sectors	1 367	155	69	87	119	114	117	98	119	115	106
From abroad	551	628	1 140	487	196	47	20	—	—	—	—
9. Capital transfers from central government	—	—	332	343	481	685	665	902	670	580	500
To local government	—	—	114	71	95	334	281	148	122	120	100
To other sectors	—	—	218	272	386	351	384	691	436	370	330
To abroad	—	—	—	—	—	—	—	63	112	90	70
10. Net change in financial assets (7+8−9)	2 384	1 830	2 078	1 544	1 628	743	266	−330	276	520	−80

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, 1960.

[a] It has been assumed that total military consumption is attributable to central government.

[b] A large part of this item represents the share of local government in taxes levied by central government.

Table XIV a

Norway — Revenue and expenditure of general government

Millions of kroner

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	3 560	3 870	4 233	5 149	5 914	6 014	6 340	6 798	7 581	8 799	9 073
Direct taxes, total	1 760	1 886	2 027	2 300	2 617	2 836	2 903	3 093	3 405	4 113	4 416
Social security contributions	212	238	272	310	380	436	489	523	599	676	722
Indirect taxes	1 537	1 662	1 836	2 480	2 858	2 693	2 861	3 071	3 410	3 813	3 722
Income from property and entrepreneurship	49	79	102	69	77	79	117	128	179	213	229
Current transfers from abroad	2	5	−4	−10	−18	−30	−30	−17	−12	−16	−16
2. Current transfers from general government	1 695	1 782	1 706	1 782	2 055	2 092	2 215	2 424	2 741	3 191	3 181
Interest on public debt	137	142	140	135	161	152	171	217	268	285	295
Subsidies	995	1 017	892	883	934	867	840	894	999	1 239	1 069
Social security benefits Other current transfers	563	623	674	764	960	1 073	1 204	1 313	1 474	1 667	1 817
3. Disposable income (1−2)	1 865	2 088	2 527	3 367	3 859	3 922	4 125	4 374	4 840	5 608	5 892
4. Public consumption	1 317	1 407	1 525	1 895	2 332	2 643	2 812	2 788	3 142	3 452	3 659
Civil	..	..	..	1 351	1 544	1 685	1 786	1 922	2 227	2 471	2 681
Military	..	..	..	544	788	958	1 026	866	915	981	978
5. Public saving (3−4)	548	681	1 002	1 472	1 527	1 279	1 313	1 586	1 698	2 156	2 233
6. Gross capital formation	205	252	286	317	393	484	550	610	676	708	784
7. Savings surplus or deficiency (5−6)	343	429	716	1 155	1 134	795	763	976	1 022	1 448	1 449
8. Capital transfers to general government	636	925	1 337	454	205	131	93	35	34	31	31
From other sectors	433	295	209	173	120	51	30	29	34	31	31
From abroad	203	630	1 128	281	85	80	63	6	—	—	—
9. Capital transfers from general government	155	169	165	194	258	293	316	328	292	313	322
To other sectors	155	169	165	194	258	293	316	328	292	313	322
To abroad	—	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	824	1 185	1 888	1 415	1 081	633	540	683	764	1 166	1 158
Gross national product (at market prices)	12586	13478	14879	18478	20379	20582	22251	23619	26605	28213	27811

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

Table XIV b

Norway — Revenue and expenditure of central government (including social security)

Millions of kroner

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	2 682	2 868	3 120	3 910	4 496	4 439	4 640	4 991	5 628	6 443	6 551
Direct taxes, total	896	887	919	1 067	1 198	1 263	1 205	1 271	1 423	1 726	1 861
Social security contributions	212	238	272	310	380	436	489	523	599	676	722
Indirect taxes	1 500	1 624	1 797	2 439	2 815	2 648	2 813	3 023	3 361	3 761	3 664
Income from property and entrepreneurship	72	114	136	104	121	122	163	191	257	296	320
Current transfers from abroad	2	5	−4	−10	−18	−30	−30	−17	−12	−16	−16
2. Current transfers from central government	1 650	1 716	1 616	1 660	1 893	1 980	2 066	2 267	2 592	3 038	2 981
Interest on public debt	125	133	131	126	152	142	160	204	253	267	274
Subsidies	995	1 017	892	883	934	867	840	894	999	1 239	1 069
Social security benefits Other current transfers	530	566	593	651	807	971	1 066	1 169	1 340	1 532	1 638
3. Disposable income (1−2)	1 032	1 152	1 504	2 250	2 603	2 459	2 574	2 724	3 036	3 405	3 570
4. Consumption	768	819	870	1 141	1 470	1 698	1 809	1 697	1 881	2 025	2 095
Civil	..	..	..	597	682	740	783	831	966	1 044	1 117
Military[a]	..	..	..	544	788	958	1 026	866	915	981	978
5. Saving (3−4)	264	333	634	1 109	1 133	761	765	1 027	1 155	1 380	1 475
6. Gross capital formation	76	79	79	84	103	134	149	155	183	205	244
7. Savings surplus or deficiency (5−6)	188	254	555	1 025	1 030	627	616	872	972	1 175	1 231
8. Capital transfers to central government	597	893	1 313	440	199	129	93	35	34	31	31
From other sectors	394	263	185	159	114	49	30	29	34	31	31
From abroad	203	630	1 128	281	85	80	63	6	—	—	—
9. Capital transfers from central government	135	145	135	162	219	245	262	265	221	236	239
To other sectors	135	145	135	162	219	245	262	265	221	236	239
To abroad	—	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	650	1 002	1 733	1 303	1 010	511	447	642	785	970	1 023

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] It has been assumed that total military consumption is attributable to central government.

TABLE XV a

Portugal — Revenue and expenditure of general government

Millions of escudos

	1952	1953	1954	1955	1956	1957
1. Tax receipts and other current revenue	7 797	7 997	8 326	9 089	9 781	10 641
Direct taxes on households, etc.	675	730	748	821	886	976
Social security contributions	1 516	1 555	1 611	1 829	1 940	2 104
Direct taxes on corporations	1 614	1 709	1 770	1 859	2 024	2 136
Indirect taxes	3 706	3 676	3 780	4 105	4 455	4 890
Income from property and entrepreneurship	304	337	405	438	468	516
Current transfers from abroad	−18	−10	12	37	8	19
2. Current transfers from general government	1 782	1 561	1 542	1 577	1 849	2 208
Interest on public debt	276	281	273	283	283	286
Subsidies	772	534	468	319	547	769
Social security benefits	734	746	801	975	1 137	1 245
Other current transfers					−118	−92
3. Disposable income (1−2)	6 015	6 436	6 784	7 512	7 932	8 433
4. Public consumption	4 609	5 218	5 864	6 058	6 164	6 337
Civil	3 068	3 406	3 943	4 029	4 086	4 157
Military	1 541	1 812	1 921	2 029	2 078	2 180
5. Public saving (3−4)	1 406	1 218	920	1 454	1 768	2 096
6. Gross capital formation	836	852	937	972	1 104	1 190
7. Savings surplus or deficiency (5−6)	570	366	−17	482	664	906
8. Capital transfers to general government	326	230	393	403	348	369
From other sectors	326	230	393	379	348	369
From abroad	—	—	—	24	—	—
9. Capital transfers from general government	46	53	33	—	47	64
To other sectors	—	—	—	—	—	—
To abroad	46	53	33	—	47	64
10. Net change in financial assets (7+8−9)	850	543	343	885	965	1 211
Gross national product (at market prices)	46 472	48 098	50 218	52 230	55 908	57 422

Source : OEEC, *Statistics on Sources and Uses of Finance, 1948-1958*, Paris 1960.

TABLE XV b

Portugal — Revenue and expenditure of central government (including social security)

Millions of escudos

	1956	1957
1. Tax receipts and other current revenue	8 832	9 604
Direct taxes on households, etc.	839	927
Social security contributions	1 940	2 104
Direct taxes on corporations	1 509	1 592
Indirect taxes	4 264	4 671
Income from property and entrepreneurship	269	288
Current transfers from abroad	11	22
2. Current transfers from central government	1 931	2 272
Interest on public debt:		
To local governments	105	120
To private sector	283	286
Subsidies	546	769
Social security benefits	1 137	1 245
Other current transfers	−140	−148
of which :		
From central to local government	(−22)	(−56)
3. Disposable income (1−2)	6 901	7 332
4. Consumption	5 434	5 595
Civil	3 356	3 415
Military [a]	2 078	2 180
5. Saving (3−4)	1 467	1 737
6. Gross capital formation	706	764
7. Savings surplus or deficiency (5−6)	761	973
8. Capital transfers to central government	258	267
From other sectors	258	267
From abroad	—	—
9. Capital transfers from central government	47	64
To other sectors	—	—
To abroad	47	64
10. Net change in financial assets (7+8−9)	972	1 176

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] It has been assumed that total military consumption is attributable to central government.

TABLE XVI

Spain — Revenue and expenditure of general government

Billions of pesetas

	1954	1955	1956
1. Tax receipts and other current revenue	49.15	54.71	63.56
Direct taxes on households, etc.	4.81	4.98	5.82
Social security contributions	9.63	10.19	11.45
Direct taxes on corporations	7.68	8.56	10.05
Indirect taxes	22.87	27.21	31.93
Income from property and entrepreneurship	3.04	3.21	3.40
Current transfers from abroad (net)	1.12	0.56	0.91
2. Current transfers from general government	12.71	14.34	19.52
Interest on public debt	5.33	5.38	7.67
Subsidies	—	—	—
Social security benefits	7.38	8.96	11.85
Other current transfers			
3. Disposable income (1−2)	36.44	40.37	44.04
4. Public consumption	28.91	32.79	38.68
5. Public saving [a] (3−4)	7.53	7.58	5.36
6. Gross capital formation	8.16	9.06	10.87
Gross national product (at market prices)	304.21	331.51	371.18

Source : Ministerio de Hacienda, *La Contabilidad nacional de España, Años 1954, 1955 y 1956,* Madrid 1959.

[a] Net saving.

TABLE XVII a

Sweden: Revenue and expenditure of general government

Millions of kronor

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	6 068	6 703	6.707	8 618	10 565	11 073	11 861	13 543	14 802	16 008	17 147
Direct taxes on households, etc.	2 855	2 992	2 895	4 189	5 166	5 573	5 828	6 236	6 695	7 346	7 759
Social security contributions	240	288	303	344	383	389	571	1 067	1 238	1 493	1 534[a]
Direct taxes on corporations	600	845	830	1 057	1 706	1 301	1 445	1 550	1 870	1 897	1 902
Indirect taxes	2 398	2 474	2 552	2 874	3 131	3 474	3 696	4 241	4 663	4 978	5 548
Income from property and entrepreneurship[b]	−8	119	149	180	199	360	348	476	367	336	438
Current transfers from abroad	−17	−15	−22	−26	−20	−24	−27	−27	−31	−42	−34
2. Current transfers from general government	1 714	1 816	2 035	2 060	2 417	2 418	2 668	3 287	3 797	4 179	4 961
Interest on public debt[c]	—	—	—	—	—	—	—	—	—	—	—
Subsidies	339	368	509	396	629	395	421	427	569	597	805
Social security benefits	897	949	967	1 101	1 238	1 459	1 719	2 400	2 769	3 057	3 393[a]
Other current transfers	478	499	559	563	550	564	528	460	459	525	763[a]
3. Disposable income (1−2)	4 354	4 887	4 672	6 558	8 148	8 655	9 193	10 256	11 005	11 829	12 186
4. Public consumption	3 465	3 742	4 020	4 963	6 022	6 651	6 989	7 627	8 353	9 325	9 961
Civil	2 547	2 730	2 858	3 461	4 174	4 579	4 779	5 347	5 867	6 682	7 168
Military	918	1 012	1 162	1 502	1 848	2 072	2 210	2 280	2 486	2 643	2 793
5. Public saving (3−4)	889	1 145	652	1 595	2 126	2 004	2 204	2 629	2 652	2 504	2 225
6. Gross capital formation	539	583	610	809	1 076	1 294	1 333	1 455	1 548	1 839	1 969
7. Savings surplus or deficiency (5−6)	350	562	42	786	1 050	710	871	1 174	1 104	665	256
8. Capital transfers to general government[d]	62	61	62	91	100	63	69	74	82	84	88
From other sectors[d]	62	61	62	59	59	63	69	74	82	84	88
From abroad	—	—	—	32	41	—	—	—	—	—	—
9. Capital transfers from general government	..	..	..	..	..	..	..	..	..	..	..
To other sectors[d]	..	..	..	..	..	..	..	..	..	..	..
To abroad	57	8	28	—	—	—	—	—	—	10	—
10. Net change in financial assets[d] (7+8−9)	355	615	76	877	1 150	773	940	1 248	1 186	739	344
Gross national product (at market prices)	25732	26931	28777	35292	38615	39572	41994	45362	48977	52993	54952

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, 1960.

[a] OEEC estimates.

[b] Net of interest on public debt.

[c] Deducted directly from the item " Income from property and entrepreneurship ".

[d] Excluding internal capital transfers other than taxes on capital.

TABLE XVII b

Sweden: Revenue and expenditure of central government (including social security)

Millions of kronor

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	4 532	4 600	4 651	6 515	8 200	7 509	7 584	9 671	10614	11 000	12 688
Direct taxes on households, etc.	1 702	1 440	1 412	2 643	3 611	2 942	2 606	3 358	3 719	4 899	5 850
Direct taxes on corporations	456	581	606	851	1 300	885	909	1 127	1 343		
Social security contributions	240	288	303	344	383	389	571	1 067	1 238	1 493	1 534[e]
Indirect taxes	2 193	2 258	2 319	2 634	2 801	3 070	3 335	3 897	4 311	4 611	5 185
Income from property and entrepreneurship[a]	−42	48	33	69	125	247	190	249	34	39	153
Current transfers from abroad	−17	−15	−22	−26	−20	−24	−27	−27	−31	−42	−34
2. Current transfers from central government	2 235	2 332	2 584	2 731	3 285	3 359	3 702	4 431	4 999	5 496	7 027
Interest on public debt[b]	—	—	—	—	—	—	—	—	—	—	—
Subsidies	331	356	499	385	603	358	392	389	534	552	789
Social security benefits	897	949	967	1 101	1 238	1 459	1 719	2 400	2 769	3 057	3 393[e]
Current transfers to local authorities	529	528	559	682	894	978	1 063	1 182	1 237	1 362	2 082
Other current transfers	478	499	559	563	550	564	528	460	459	525	763[e]
3. Disposable income (1−2)	2 297	2 268	2 067	3 784	4 915	4 150	3 882	5 240	5 615	5 504	5 661
4. Consumption	1 775	1 905	2 074	2 579	3 131	3 503	3 626	3 833	4 214	4 609	4 856
Civil[c]	857	893	912	1 077	1 283	1 431	1 416	1 553	1 728	1 966	2 063
Military[c]	918	1 012	1 162	1 502	1 848	2 072	2 210	2 280	2 486	2 643	2 793
5. Savings (3−4)	522	363	−7	1 205	1 784	647	256	1 407	1 401	895	805
6. Gross capital formation	92	117	122	181	304	387	322	330	357	423	459
7. Savings surplus or deficiency (5−6)	430	246	−129	1 024	1 480	260	−66	1 077	1 044	472	346
8. Capital transfers to central government[d]	62	61	62	91	100	63	69	74	82	84	88
From other sectors[d]	62	61	62	59	59	63	69	74	82	84	88
From abroad	—	—	—	32	41	—	—	—	—	—	—
9. Capital transfers from central government	..	..	..	..	..	..	..	..	..	..	..
To other sectors[d]	..	..	..	..	..	..	..	..	..	..	..
To abroad	57	8	28	—	—	—	—	—	—	10	—
10. Net change in financial assets[d] (7+8−9)	435	299	−95	1 115	1 580	323	3	1 151	1 126	546	434

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, 1960.

[a] Net of interest on public debt.

[b] Interest on public debt is deducted directly from " Income from property and entrepreneurship".

[c] It has been assumed that total of military consumption is attributable to central government. Civil consumption derived as a residual.

[d] Excluding internal capital transfers other than taxes on capital.

[e] OEEC estimates.

TABLE XVIII a

United Kingdom — Revenue and expenditure of general government

Millions of pounds sterling

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	4 149	4 452	4 456	4 837	5 318	5 430	5 577	5 966	6 315	6 726	7 226
Direct taxes on households, etc.	981	1 007	1 029	1 176	1 188	1 148	1 254	1 362	1 489	1 642	1 735
Social security contributions	335	436	440	452	476	525	532	594	642	657	859
Direct taxes on corporations	629	788	782	750	985	968	893	957	865	945	983
Indirect taxes	2 023	1 984	2 062	2 271	2 291	2 373	2 484	2 623	2 831	2 956	3 031
Income from property and entrepreneurship	222	276	187	232	316	367	424	449	524	570	681
Current transfers from abroad	−41	−39	−44	−44	62	49	−10	−19	−36	−44	−63
2. Current transfers from general government	1 817	1 803	1 763	1 824	1 952	2 013	2 095	2 189	2 310	2 415	2 748
Interest on public debt	541	536	536	578	640	670	676	753	780	784	893
Subsidies	573	525	475	468	418	364	423	346	365	411	400
Social security benefits	203	271	277	311	439	486	494	560	607	624	765
Other current transfers	500	471	475	467	455	493	502	530	558	596	690
3. Disposable income (1−2)	2 332	2 649	2 693	3 013	3 366	3 417	3 482	3 777	4 005	4 311	4 478
4. Public consumption	1 765	1 982	2 076	2 451	2 916	3 076	3 164	3 239	3 520	3 631	3 775
Civil	1 025	1 212	1 256	1 361	1 466	1 536	1 610	1 715	1 895	2 081	2 224
Military	740	770	820	1 090	1 450	1 540	1 554	1 524	1 625	1 550	1 551
5. Public saving (3−4)	567	667	617	562	450	341	318	538	485	680	703
6. Gross capital formation	−17	41	129	302	262	285	289	267	294	311	353
7. Savings surplus or deficiency (5−6)	584	626	488	260	188	56	29	271	191	369	350
8. Capital transfers to general government	388	383	351	267	189	192	194	198	180	180	183
From other sectors	215	254	190	194	159	165	183	184	166	176	182
From abroad	173	129	161	73	30	27	11	14	14	4	1
9. Capital transfers from general government	562	540	329	504	658	687	423	452	567	539	490
To other sectors	562	540	329	504	658	687	423	452	567	539	490
To abroad	—	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	410	469	510	23	−281	−439	−200	17	−196	10	43
Gross national product (at market prices)	11897	12590	13279	14647	15865	16936	18010	19172	20700	21903	22673

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

TABLE XVIII b

United Kingdom — Revenue and expenditure of central government (including social security)

Millions of pounds sterling

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Tax receipts and other current revenue	3 717	4 009	3 991	4 332	4 765	4 806	4 899	5 248	5 483	5 797	6 218
Direct taxes on households, etc.	981	1 007	1 029	1 176	1 188	1 148	1 254	1 362	1 489	1 642	1 735
Social security contributions	335	436	440	452	476	525	532	594	642	657	859
Direct taxes on corporations	629	788	782	750	985	968	893	957	865	945	983
Indirect taxes	1 706	1 658	1 725	1 907	1 899	1 940	2 024	2 148	2 275	2 341	2 386
Income from property and entrepreneurship	107	159	59	91	155	176	206	206	248	256	318
Current transfers from abroad	−41	−39	−44	−44	62	49	−10	−19	−36	−44	−63
2. Current transfers from central government	1 993	1 983	1 942	2 029	2 169	2 236	2 318	2 421	2 558	2 707	3 032
Interest on public debt	487	478	470	504	551	563	551	610	613	589	662
Subsidies	559	511	461	453	400	345	403	321	336	382	370
Social security benefits	203	271	277	311	439	486	494	560	607	624	765
Current transfers to local authorities	244	252	259	294	324	349	368	400	444	516	545
Other current transfers	500	471	475	467	455	493	502	530	558	596	690
3. Disposable income (1−2)	1 724	2 026	2 049	2 303	2 596	2 570	2 581	2 827	2 925	3 090	3 186
4. Consumption	1 235	1 440	1 511	1 822	2 228	2 343	2 380	2 398	2 570	2 573	2 627
Civil	495	670	691	732	778	803	826	874	945	1 023	1 076
Military [a]	740	770	820	1 090	1 450	1 540	1 554	1 524	1 625	1 550	1 551
5. Saving (3−4)	489	586	538	481	368	227	201	429	355	517	559
6. Gross capital formation	−73	−38	27	173	121	129	129	92	86	86	122
7. Savings surplus or deficiency (5−6)	562	624	511	308	247	98	72	337	269	431	437
8. Capital transfers to central government	388	383	351	267	189	192	194	198	180	180	183
From other sectors	215	254	190	194	159	165	183	184	166	176	182
From abroad	173	129	161	73	30	27	11	14	14	4	1
9. Capital transfers from central government	270	281	42	187	275	265	35	103	221	206	207
To other sectors	270	281	42	187	275	265	35	103	221	206	207
To abroad	—	—	—	—	—	—	—	—	—	—	—
10. Net change in financial assets (7+8−9)	680	726	820	388	161	25	231	432	228	405	413

Source : OEEC, *Statistics of Sources and Uses of Finance, 1948-1958*, Paris 1960.

[a] It has been assumed that total of military consumption is attributable to central government.

TABLE XIX

Deliveries, trade and availabilities of engineering products in western European countries in 1952, 1957 and 1958

Millions of current dollars

Commodity group [a]	Deliveries to domestic market			Exports to											
				Western Germany			Other EEC members [b]			United Kingdom			Other EFTA members [c]		
	1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958
Western Germany															
Metal manufactures	117	221	260				53	98	89	14	18	16	47	92	92
Machinery (excluding electric)	1 028	1 886	1 703				232	531	472	67	98	109	156	307	323
Electric goods	898	1 821	2 099				49	163	155	4	14	16	54	146	167
Transport equipment . . .	939	1 189	1 260				62	171	182	2	37	47	112	305	398
Instruments and watches . .	133	167	432				20	39	37	3	11	14	20	44	47
Total	3 115	5 284	5 754				416	1 002	935	90	178	202	389	894	1 027
Other EEC members [b]															
Metal manufactures	299	596	663	2	10	14	29	51	45	17	9	10	13	19	18
Machinery (excluding electric)	2 266	3 553	3 811	17	60	81	90	186	181	63	49	61	37	69	69
Electric goods	1 510	2 550	2 557	8	20	49	69	131	138	9	19	19	29	49	72
Transport equipment . . .	2 237	4 191	3 964	11	47	78	56	170	178	9	30	43	50	108	135
Instruments and watches . .	224	359	336	2	5	6	6	8	15	3	6	6	6	8	7
Total	6 536	11 249	11 331	40	142	228	250	546	557	101	113	139	135	253	301
United Kingdom															
Metal manufactures	262	338	338	1	2	4	21	30	26				21	25	26
Machinery (excluding electric)	2 354	2 955	2 816	11	34	45	132	202	178				103	119	129
Electric goods	1 331	1 962	2 109	1	8	11	29	48	49				24	33	37
Transport equipment . . .	2 214	3 239	3 394	12	16	22	73	97	72				107	131	124
Instruments and watches . .	193	276	277	—	2	3	8	13	13				8	9	10
Total	6 354	8 770	8 934	25	62	85	263	390	338				263	317	326
Other EFTA members [c]															
Metal manufactures	123	136	148	3	11	12	15	24	20	5	7	8	20	34	34
Machinery (excluding electric)	778	923	981	29	86	104	102	156	151	37	58	60	64	96	105
Electric goods	482	579	620	6	18	22	31	52	49	4	9	10	18	42	46
Transport equipment . . .	525	796	759	7	25	19	25	31	35	2	5	8	72	148	160
Instruments and watches . .	58	80	124	9	19	20	30	33	31	10	12	13	16	19	21
Total	1 966	2 514	2 632	54	159	177	203	296	286	58	91	99	190	339	366
Rest of World															
Metal manufactures				—	5	5	16	23	20	4	12	12	7	14	13
Machinery (excluding electric)				15	65	78	215	283	252	148	145	153	73	98	101
Electric goods				1	14	20	51	73	77	10	33	38	25	30	31
Transport equipment . . .				5	48	55	94	181	146	43	43	39	50	123	114
Instruments and watches . .				1	3	10	11	24	23	2	9	12	7	14	13
Total				22	135	168	387	584	518	207	242	254	162	279	272

World												
Metal manufactures				6	28	35	134	226	200	(40)	46	46	108	184	183
Machinery (excluding electric)				72	245	308	771	1 358	1 234	315	350	383	433	689	727
Electric goods				16	60	102	229	467	468	27	75	83	150	300	353
Transport equipment				35	136	174	310	650	613	56	115	137	391	815	931
Instruments and watches				12	29	39	75	117	119	18	38	45	57	94	98
Total				141	498	658	1 519	2 818	2 634	456	624	694	1 139	2 082	2 292

Commodity group [a]	Exports to *(concluded)*									Total deliveries			Availabilities [d]		
	North America			Rest of World			World								
	1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958
Western Germany															
Metal manufactures	15	49	48	123	134	134	252	391	379	369	612	639	123	249	295
Machinery (excluding electric)	35	79	53	385	733	929	875	1 748	1 886	1 903	3 634	3 589	1 100	2 131	2 011
Electric goods	2	47	45	131	272	285	240	642	668	1 138	2 463	2 767	914	1 881	2 201
Transport equipment	5	168	227	163	490	549	344	1 171	1 403	1 283	2 360	2 663	974	1 325	1 434
Instruments and watches	17	38	37	66	119	109	126	251	244	259	418	676	145	196	471
Total	74	381	410	868	1 748	2 006	1 837	4 203	4 580	4 952	9 487	10 334	3 256	5 782	6 412
Other EEC members [b]															
Metal manufactures	17	46	50	247	293	237	325	428	374	624	1 024	1 037	433	822	863
Machinery (excluding electric)	33	39	26	375	490	559	615	893	977	2 881	4 446	4 788	3 037	4 911	5 045
Electric goods	5	24	28	236	263	296	356	506	602	1 866	3 056	3 159	1 739	3 017	3 025
Transport equipment	4	62	147	434	589	650	564	1 006	1 231	2 801	5 197	5 195	2 547	4 841	4 577
Instruments and watches	2	7	7	32	38	31	51	72	72	275	431	408	299	476	455
Total	61	178	258	1 324	1 673	1 773	1 911	2 905	3 256	8 447	14 154	14 587	8 055	14 067	13 965
United Kingdom															
Metal manufactures	27	49	50	200	254	243	270 [e]	360	349	532	698	687	302	384	384
Machinery (excluding electric)	77	116	114	795	1 100	1 122	1 118	1 571	1 588	3 472	4 526	4 404	2 669	3 305	3 199
Electric goods	26	68	78	423	479	451	503	636	626	1 834	2 598	2 735	1 358	2 037	2 192
Transport equipment	93	226	353	793	999	1 015	1 078	1 469	1 586	3 292	4 708	4 980	2 270	3 354	3 531
Instruments and watches	4	5	6	25	45	13	45	74	45	238	350	322	211	314	322
Total	227	464	601	2 236	2 877	2 844	3 014	4 110	4 194	9 368	12 880	13 128	6 810	9 394	9 628
Other EFTA members [c]															
Metal manufactures	8	15	16	86	83	80	137	174 [f]	170 [f]	260	310	318	231	320	331
Machinery (excluding electric)	28	48	31	222	353	378	482	797	829	1 260	1 720	1 810	1 211	1 612	1 708
Electric goods	4	17	23	105	103	115	168	241	265	650	820	885	632	879	973
Transport equipment	3	22	29	106	153	160	215	384	411	740	1 180	1 170	916	1 611	1 690
Instruments and watches	77	77	65	140	200	183	282	360	333	340	440	457	115	174	222
Total	120	179	164	659	892	916	1 284	1 956	2 008	3 250	4 470	4 640	3 105	4 596	4 924

Sources : Deliveries data: *The Engineering Industries in Europe*, OEEC, Paris 1958 and 1959; for Switzerland, estimates by the ECE secretariat. Trade data: *Foreign Trade Statistics, Series I, II, III, IV;* and *The Network of Intra-European Trade*, OEEC, Paris 1959.

NOTE. — Trade between the countries shown is based on importers' data, except for Switzerland where exporters' data are used. Exports to rest of world are residuals derived from data on exports f.o.b. to world, and exports c.i.f. to the European countries shown, and f.o.b. to North America.

[a] The commodity groups correspond to SITC Group 699, Divisions 71, 72, 73, and Groups 861 plus 864, respectively.

[b] Belgium-Luxembourg, France, Italy and the Netherlands.

[c] Austria, Denmark, Norway, Sweden and Switzerland. The remaining member country of the European Free Trade Association, Portugal, is not included.

[d] Availabilities = total deliveries + imports − exports.

[e] Since Group 699 is not shown separately for this year, the estimate necessary for comparability with the other years has been made by the secretariat.

Including Group 691 for Switzerland.

TABLE XX. — Western European trade in

Millions of

Imports from / Imports into	Commodity groups [a]	Western Germany			Other Common Market countries [b]			United Kingdom		
		1952	1957	1958	1952	1957	1958	1952	1957	1958
Western Germany	Railway vehicles				3.0	0.6	1.5	0.3	0.9	0.6
	Road motor vehicles				6.2	24.2	53.2	0.7	2.6	3.5
	Other road vehicles				0.5	1.5	2.9	0.1	0.5	0.8
	Aircraft				—	8.4	16.6	—	4.5	13.5
	Ships and boats				1.6	12.7	3.5	10.8	7.1	3.4
	Transport equipment				11.3	47.4	77.7	11.9	15.6	21.8
Other Common Market countries [b]	Railway vehicles	3.9	10.4	9.3	7.1	14.8	11.3	2.5	1.7	0.7
	Road motor vehicles	50.6	115.8	121.6	29.0	105.0	117.0	39.4	44.8	37.9
	Other road vehicles	3.6	6.8	5.3	4.6	3.3	2.7	2.5	3.9	3.1
	Aircraft	—	0.2	0.3	2.4	9.8	17.6	13.8	25.7	13.3
	Ships and boats	3.8	38.3	45.2	13.0	36.0	29.6	15.0	20.9	17.3
	Transport equipment	61.9	171.5	181.7	56.1	168.9	178.2	73.2	97.0	72.3
United Kingdom	Railway vehicles	—	0.4	1.1	—	1.0	1.3			
	Road motor vehicles	2.0	16.3	13.0	9.1	18.9	17.3			
	Other road vehicles	—	0.3	0.3	—	0.7	0.5			
	Aircraft	—	0.2	0.3	—	2.3	6.7			
	Sihps and boats	—	19.9	32.3	—	6.6	17.3			
	Transport equipment	2.0	37.1	47.0	9.1	29.5	43.1			
Other EFTA countries [c]	Railway vehicles	7.4	13.4	14.2	0.9	0.9	1.3	0.5	1.7	1.8
	Road motor vehicles	66.2	220.9	259.2	39.0	58.1	59.7	66.0	68.9	72.0
	Other road vehicles	2.6	5.0	4.5	0.3	1.2	0.8	1.8	1.5	1.5
	Aircraft	—	0.1	0.5	0.1	1.0	2.5	3.3	18.3	9.4
	Ships and boats	36.0	65.8	119.5	8.9	45.6	70.5	35.5	40.8	38.8
	Transport equipment	112.2	305.2	397.9	49.2	106.8	134.8	107.1	131.2	123.5
Other OEEC countries	Railway vehicles	6.8	2.4	4.2	3.9	2.4	2.5	2.2	7.8	1.4
	Road motor vehicles	18.2	29.6	35.9	11.1	11.6	15.1	33.9	28.8	35.5
	Other road vehicles	1.2	0.8	0.9	0.1	0.3	0.5	4.2	3.5	3.6
	Aircraft	—	—	—	—	0.1	2.5	1.0	4.0	2.4
	Ships and boats	0.5	7.6	9.4	19.2	1.0	21.6	3.5	16.3	22.0
	Transport equipment	26.7	40.4	50.4	34.3	15.4	42.2	44.8	60.4	64.9
Total OEEC countries	Railway vehicles	18.1	26.6	28.8	14.9	19.7	17.9	5.5	12.1	4.5
	Road motor vehicles	137.0	382.6	429.7	94.4	217.8	262.3	140.0	145.1	148.9
	Other road vehicles	7.4	12.9	11.0	5.5	7.0	7.4	8.6	9.4	9.0
	Aircraft	—	0.5	1.1	2.5	21.6	45.9	18.1	52.5	38.6
	Ships and boats	40.3	131.6	206.4	42.7	101.9	142.5	64.8	85.1	81.5
	Transport equipment	202.8	554.2	677.0	160.0	368.0	476.0	237.0	304.2	282.5
North America	Railway vehicles	—	0.4	0.4	0.5	—	0.1	3.6	7.4	5.6
	Road motor vehicles	3.7	165.8	224.2	4.1	63.1	143.9	65.3	164.6	259.2
	Other road vehicles	1.2	7.3	7.4	0.4	2.2	4.0	7.3	11.7	12.3
	Aircraft	—	—	2.0	1.6	2.6	8.3	—	25.1	75.6
	Ships and boats	0.2	0.8	1.0	1.3	8.3	5.7	0.8	48.2	1.1
	Transport equipment	5.1	174.3	235.0	7.9	76.2	162.0	77.0	257.0	353.8
World	Railway vehicles	51.6	62.0	106.5	105.8	82.4	84.6	103.2	117.3	129.7
	Road motor vehicles	210.7	814.3	995.9	291.6	583.9	744.1	559.9	863.7	940.6
	Other road vehicles	23.1	35.5	32.7	41.5	39.6	39.3	94.0	70.8	63.1
	Aircraft	—	0.5	12.4	9.0	69.5	88.7	—	195.3	275.9
	Ships and boats	58.6	258.5	255.5	116.6	230.2	274.5	94.3	222.2	176.7
	Transport equipment	344.0	1 170.8	1 403.0	564.5	1 005.6	1 231.2	851.4	1 469.3	1 586.0

Sources: *OEEC Statistical Bulletin — Foreign Trade*, Series IV, and *The Network of Intra-European Trade*, OEEC, Paris.

NOTE. — Figures for western Europe are based on importers' data c.i.f., while those for North America and World are exports f.o.b. Export figures for Switzerland, which is included in EFTA, have been estimated.

ransport equipment, 1952, 1957 and 1958

urrent dollars

Other EFTA countries [c]			Total OEEC countries			North America			Rest of World			TOTAL WORLD		
1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958
0.2	0.6	1.1	3.5	2.1	3.2	—	2.0	0.5	0.1	0.1	—	3.6	4.2	3.7
1.7	2.7	3.1	8.6	29.5	59.9	0.7	3.0	2.9	0.6	1.0	1.6	9.9	33.5	64.4
0.3	0.6	0.7	0.9	2.6	4.4	—	0.1	0.2	—	—	—	0.9	2.7	4.6
—	—	1.6	—	12.9	31.7	—	36.6	34.4	—	0.1	—	—	49.6	66.1
5.2	20.7	12.8	18.3	40.5	19.9	0.3	0.9	9.2	1.9	4.5	5.9	20.5	45.9	35.0
7.4	24.6	19.3	31.3	87.6	119.1	1.0	42.6	47.2	2.6	5.7	7.5	34.9	135.9	173.8
1.0	3.9	4.9	14.5	30.8	26.4	0.9	0.8	0.8	0.6	0.5	—	16.0	32.1	27.2
4.1	10.5	8.2	123.1	276.1	284.8	52.1	52.7	39.8	3.1	2.6	2.5	178.3	331.4	327.1
0.6	0.6	0.6	11.3	14.6	12.1	0.2	1.2	0.5	0.9	0.9	0.5	12.4	16.7	13.1
0.2	0.1	0.1	16.4	35.9	31.5	14.8	107.9	78.1	0.9	0.9	2.3	32.1	144.7	111.9
18.9	16.0	20.7	50.8	111.6	113.3	14.1	0.9	1.0	6.0	12.7	18.9	70.9	125.2	133.2
24.8	31.1	34.5	216.1	469.0	468.1	82.1	163.5	120.2	11.5	17.6	24.2	309.7	650.1	612.5
—	0.7	0.6	—	2.2	3.2	—	2.2	0.1	—	0.3	0.3	—	4.7	3.6
1.5	1.0	1.5	14.3	39.3	34.5	31.0	4.4	3.2	10.9	1.3	1.6	56.2	45.0	39.3
—	0.2	0.2	—	1.5	1.3	—	0.2	—	—	0.1	0.3	—	1.8	1.6
—	0.6	0.6	—	3.6	10.4	—	22.8	14.2	—	6.5	9.1	—	32.9	33.7
—	2.8	4.7	—	29.6	54.5	—	—	—	—	0.8	4.0	—	30.4	58.5
1.5	5.3	7.6	14.3	76.2	103.9	31.0	29.6	17.5	10.9	9.0	15.3	56.2	114.8	136.7
1.3	5.6	4.9	10.1	21.6	22.3	0.6	0.5	2.4	0.1	0.4	—	10.8	22.5	24.7
7.0	22.4	25.0	178.2	370.3	416.2	29.5	35.9	31.1	7.4	6.3	6.1	215.1	412.5	453.4
0.7	0.7	0.6	5.4	8.4	7.9	0.2	0.2	0.2	0.4	0.2	0.1	6.0	8.8	8.2
0.1	1.7	0.4	3.5	21.1	13.0	9.8	39.6	26.9	0.1	0.8	0.2	13.4	61.5	40.1
62.5	118.7	129.2	142.9	270.9	358.1	1.7	—	0.8	0.3	38.8	46.1	144.9	309.7	405.0
71.6	149.1	160.1	340.1	692.3	817.5	41.8	76.2	61.4	8.3	46.5	52.5	390.2	815.0	931.4
—	3.5	—	12.9	16.1	8.2	—	—	1.5	3.0	1.8	—	15.9	17.9	9.7
3.4	5.7	7.8	66.6	75.8	94.7	10.9	8.1	6.1	2.4	6.6	5.6	79.9	90.5	106.4
—	0.1	0.1	5.5	4.7	5.3	—	0.3	0.2	0.4	0.5	0.2	5.9	5.5	5.7
—	0.1	0.2	1.0	4.2	5.1	0.2	0.8	6.5	—	0.3	—	1.2	5.3	11.6
0.3	3.2	5.9	23.5	28.1	59.1	1.9	1.1	1.3	1.0	5.8	11.3	26.4	35.0	71.7
3.7	12.6	14.0	109.5	128.9	172.4	13.0	10.3	15.6	6.8	15.0	17.1	129.3	154.2	205.1
2.5	14.3	11.5	41.0	72.8	63.3	1.5	5.5	5.3	3.8	3.1	0.3	46.3	81.4	68.9
17.7	42.3	45.6	390.8	791.0	890.1	124.2	104.1	83.1	24.4	17.8	17.4	539.4	912.9	990.6
1.6	2.2	2.2	23.1	31.8	31.0	0.4	2.0	1.1	1.7	1.7	1.1	25.2	35.5	33.2
0.3	2.5	2.9	20.9	77.7	91.7	24.8	207.7	160.1	1.0	8.6	11.6	46.7	294.0	263.4
86.9	161.4	173.3	235.5	480.7	604.9	18.0	2.9	12.3	9.2	62.6	86.2	262.7	546.2	703.4
109.0	222.7	235.5	711.3	1 454.0	1 681.0	168.9	322.2	261.9	40.1	93.8	116.6	920.3	1 870.0	2 059.5
—	—	0.1												
—	16.3	29.0												
—	2.1	1.8												
0.5	1.0	—												
0.3	1.9	1.8												
0.8	21.3	32.7												
14.6	24.6	25.8												
38.1	93.9	112.7												
7.8	8.0	6.1												
1.4	5.3	6.6												
153.8	250.7	260.8												
215.7	382.5	412.0												

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[a] Titles correspond to SITC Groups 731, 732, 733, 734, 735 and Div. 73.

[b] Belgium-Luxembourg, Netherlands, France and Italy.

[c] Austria, Denmark, Norway, Sweden and Switzerland, but excluding Portugal.

TABLE XXI. — Western European trade in machinery and

Millions of

Importing countries and commodity groups [a] / Imports from ▶	Western Germany			Other Common Market countries[b]			United Kingdom		
	1952	1957	1958	1952	1957	1958	1952	1957	1958
Western Germany									
Power generating (except electric) machinery				2.1	7.0	11.5	0.4	3.5	4.9
Agricultural machinery and implements				0.4	1.3	2.3	0.3	0.9	1.0
Tractors others than steam				—	1.2	2.4	0.7	5.4	6.0
Office machinery				2.4	9.3	13.3	0.6	2.5	3.1
Metalworking machinery				1.8	5.8	6.5	0.7	2.4	2.3
Mining, construction and other industrial machinery				10.3	35.2	45.4	8.6	19.6	27.2
Total machinery (other than electric)				17.0	59.8	81.4	11.3	34.3	44.5
Other Common Market countries [b]									
Power generating (except electric) machinery	25.6	64.2	63.8	15.2	37.7	44.8	21.5	47.8	41.7
Agricultural machinery and implements	10.0	27.6	22.4	4.2	6.9	6.4	5.9	7.0	5.2
Tractors other than steam	12.2	31.7	23.8	1.0	7.1	3.4	13.2	18.0	14.8
Office machinery	6.5	17.1	17.5	7.1	18.8	20.6	3.0	5.8	6.3
Metalworking machinery	38.3	67.8	58.4	7.6	16.8	13.8	7.8	15.7	11.5
Mining, construction and other industrial machinery	139.3	322.3	286.1	54.2	99.0	91.7	79.8	107.7	98.8
Total machinery (other than electric)	231.9	530.7	472.0	89.3	186.3	180.7	131.2	202.0	178.3
United Kingdom									
Power generating (except electric) machinery	2.6	4.7	7.3	3.3	12.7	14.4			
Agricultural machinery and implements	2.9	3.2	4.5	1.5	1.1	2.6			
Tractors other than steam	0.2	0.7	0.6	0.7	0.3	0.6			
Office machinery	1.6	10.4	11.9	2.6	5.9	7.2			
Metalworking machinery	38.2	26.9	22.3	38.9	5.2	5.9			
Mining, construction and other industrial machinery	21.8	52.3	62.2	15.3	23.9	30.4			
Total machinery (other than electric)	67.3	98.2	108.8	62.3	49.1	61.1			
Other EFTA countries [c]									
Power generating (except electric) machinery	17.9	34.6	33.7	3.0	12.8	11.1	8.2	17.1	18.7
Agricultural machinery and implements	6.1	18.4	17.9	1.1	1.6	1.7	3.8	2.1	1.9
Tractors other than steam	5.7	8.3	8.5	1.1	1.2	1.6	29.7	24.7	28.8
Office machinery	3.0	9.5	10.1	2.9	7.5	8.0	2.2	3.4	3.1
Metalworking machinery	31.5	48.9	44.9	5.1	6.7	7.4	5.2	6.6	5.8
Mining, construction and other industrial machinery	92.1	187.4	208.3	23.4	39.0	38.9	54.2	64.7	70.8
Total machinery (other than electric)	156.3	307.1	323.4	36.6	68.8	68.7	103.3	118.6	129.1
Other OEEC countries									
Power generating (except electric) machinery	7.7	6.9	5.7	1.7	2.0	1.7	12.1	9.5	7.9
Agricultural machinery and implements	12.0	5.6	7.4	2.7	0.9	1.6	13.3	7.2	8.3
Tractors other than steam	12.2	0.9	1.2	1.5	0.2	0.1	17.4	7.3	8.5
Office machinery	0.7	1.1	1.1	0.5	1.0	1.1	0.9	1.5	1.8
Metalworking machinery	4.4	5.2	5.9	0.9	2.6	3.3	1.3	2.7	3.1
Mining, construction and other industrial machinery	33.9	40.4	47.6	19.0	21.0	19.2	43.7	32.8	36.8
Total machinery (other than electric)	70.9	60.1	68.9	26.3	27.7	27.0	88.7	61.0	66.4
Total OEEC countries									
Power generating (except electric) machinery	53.8	110.4	110.5	25.3	72.2	83.5	42.2	77.9	73.2
Agricultural machinery and implements	31.0	54.8	52.2	9.9	11.8	14.6	23.3	17.2	16.4
Tractors other than steam	30.3	41.6	34.1	4.3	10.0	8.1	61.0	55.4	58.1
Office machinery	11.8	38.1	40.6	15.5	42.5	50.2	6.7	13.2	14.3
Metalworking machinery	112.4	148.8	131.5	54.3	37.1	36.9	15.0	27.4	22.7
Mining, construction and other industrial machinery	287.1	602.4	604.2	122.2	218.1	225.6	186.3	224.8	233.6
Total machinery (other than electric)	526.4	996.1	973.1	231.5	391.7	418.9	334.5	415.9	418.3
North America									
Power generating (except electric) machinery	0.6	3.8	5.6	1.9	4.3	5.9	9.2	28.9	47.6
Agricultural machinery and implements	0.2	1.1	0.9	—	—	0.2	3.2	3.0	2.9
Tractors other than steam	0.3	0.4	0.3	—	—	—	7.6	13.3	25.9
Office machinery	0.3	14.4	19.4	2.1	13.1	14.7	5.8	8.8	7.0
Metalworking machinery	19.9	16.8	15.7	18.0	5.0	3.9	15.0	15.6	9.9
Mining, construction and other industrial machinery	17.5	54.2	61.1	12.8	25.0	21.1	31.2	63.4	57.1
Total machinery (other than electric)	38.8	90.7	103.0	34.8	47.4	45.8	72.0	133.0	150.4
World									
Power generating (except electric) machinery	102.6	191.3	208.4	94.1	170.2	198.8	196.0	346.0	380.0
Agricultural machinery and implements	32.9	63.0	61.3	19.8	20.0	26.3	59.5	47.9	46.8
Tractors other than steam	64.4	72.6	79.3	27.8	32.1	26.0	126.3	203.7	215.3
Office machinery	18.9	68.4	78.3	30.1	84.8	101.5	28.2	53.2	54.3
Metalworking machinery	177.7	307.7	313.6	94.2	70.4	74.5	76.3	105.6	91.8
Mining, construction and other industrial machinery	478.7	1 044.6	1 144.9	349.4	516.0	549.1	632.1	814.6	800.0
Total machinery (other than electric)	875.2	1 747.6	1 885.8	615.4	893.5	976.2	1 118.4	1 571.0	1 588.2

Sources : *OEEC Statistical Bulletin — Foreign Trade*, Series IV, and *The Network of Intra-European Trade*, OEEC, Paris.

NOTE. — Figures for western Europe are based on importers' data c.i.f., while those for North America and World are exports f.o.b. Export figures for Switzerland, which is included in EFTA, have been estimated.

equipment, excluding electric, in 1952, 1957 and 1958

current dollars

Other EFTA countries [c]			Total OEEC countries			North America			Rest of World			TOTAL WORLD		
1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958	1952	1957	1958
1.7	8.3	7.0	4.2	18.9	23.5	0.1	5.8	8.0	0.3	—	0.3	4.6	24.7	31.8
2.0	2.9	3.3	2.7	5.1	6.7	—	0.5	0.9	0.2	—	—	2.9	5.6	7.6
—	0.1	0.2	0.7	6.7	8.6	0.1	—	0.3	0.1	0.2	0.1	0.9	6.9	9.0
2.8	5.7	6.2	5.8	17.5	22.7	3.9	9.4	11.3	0.2	0.1	0.1	9.9	27.0	34.1
6.0	13.2	13.5	8.5	21.4	22.3	2.2	15.0	12.3	0.2	1.2	1.7	10.9	37.6	36.3
16.3	56.0	74.1	35.2	110.9	146.9	7.4	31.0	40.1	0.3	1.3	1.7	42.9	143.2	188.7
28.8	86.2	104.3	57.1	180.5	230.7	13.7	61.7	72.9	1.3	2.8	3.9	72.1	245.0	307.5
16.4	18.7	16.6	78.8	168.4	167.0	39.3	44.7	49.1	1.9	1.3	5.7	120.0	214.4	221.8
6.4	5.5	5.2	26.5	47.0	39.3	2.9	4.1	2.4	0.8	1.1	0.3	30.2	52.2	42.0
2.1	3.2	2.2	28.5	60.0	44.4	4.6	6.3	4.7	1.2	1.9	2.0	34.3	68.2	51.1
5.6	8.4	7.6	22.2	50.1	52.2	13.4	20.2	18.6	1.1	2.4	3.0	36.7	72.7	73.8
10.3	16.7	15.2	64.0	117.0	99.0	52.8	53.6	28.2	1.4	2.8	2.2	118.2	173.4	129.4
61.3	104.1	104.1	334.6	633.1	580.7	93.6	138.8	127.3	3.7	5.2	7.7	431.9	777.1	715.7
102.1	156.6	150.9	554.6	1 075.6	982.6	206.6	267.7	230.3	10.1	14.7	20.9	771.3	1 358.0	1 233.8
4.8	8.9	7.6	12.6	28.7	35.4	6.1	15.0	21.2	3.6	10.3	19.3	22.3	54.0	75.9
0.6	1.9	2.6	5.3	6.6	10.1	1.4	1.0	1.0	0.1	0.3	0.1	6.8	7.9	11.2
—	—	0.1	0.9	1.1	1.5	3.0	5.1	7.8	—	0.3	0.4	3.9	6.5	9.7
1.1	4.3	4.7	5.4	20.7	23.9	8.8	11.1	12.4	0.3	0.5	0.5	14.5	32.3	36.8
15.0	10.9	10.6	92.1	43.1	38.8	79.7	26.2	22.0	0.5	2.6	1.9	172.3	71.5	62.7
15.7	32.4	34.5	54.0	110.7	129.9	38.3	60.2	50.9	3.0	6.6	6.1	95.3	177.5	186.9
37.2	58.4	60.1	170.3	210.9	239.6	137.3	118.6	115.3	7.5	20.2	28.3	315.1	349.7	383.2
7.9	13.7	16.0	37.1	78.2	79.7	4.5	8.7	11.3	0.6	0.9	0.2	42.2	87.8	91.2
5.3	5.9	5.8	16.3	28.0	27.6	0.6	1.4	1.2	0.6	0.3	0.2	17.5	29.7	29.0
1.3	2.5	3.7	37.8	36.7	42.8	5.2	7.4	6.1	0.4	0.7	0.4	43.4	44.8	49.3
2.9	5.6	5.6	11.0	26.0	26.9	6.0	7.7	7.4	2.6	1.6	1.5	19.6	35.3	35.8
4.4	6.6	6.7	46.2	68.8	65.0	6.5	6.8	5.1	1.5	3.6	3.7	54.2	79.2	73.8
43.1	60.9	67.0	212.8	352.0	385.7	36.8	56.1	58.2	5.5	4.2	4.1	255.1	412.3	448.0
64.9	95.2	104.8	361.2	589.7	627.7	59.6	88.1	89.3	11.2	11.3	10.1	432.0	689.1	727.1
2.1	1.6	2.0	23.6	20.0	17.5	1.6	3.7	3.6	0.9	3.1	1.4	26.1	26.8	22.5
1.4	2.0	2.8	29.4	15.7	20.2	7.2	1.8	2.6	2.1	2.7	2.7	38.7	20.2	25.5
0.8	0.1	—	31.9	8.5	9.9	4.1	3.0	3.0	0.6	0.1	0.5	36.6	11.6	13.4
0.5	0.6	0.5	2.6	4.2	4.8	1.2	0.8	0.6	0.7	0.7	1.0	4.5	5.7	6.4
2.2	1.2	1.8	8.8	11.7	14.5	0.9	2.1	2.2	0.9	3.3	3.5	10.6	17.1	20.2
10.1	11.9	14.0	106.7	106.1	118.0	23.4	23.0	20.8	1.7	11.6	13.8	131.8	140.7	152.6
17.1	17.4	21.1	203.0	166.2	184.9	38.4	34.4	32.8	6.9	21.5	22.9	248.3	222.1	240.6
32.9	51.2	49.2	156.2	314.2	323.1	51.6	77.9	93.2	7.4	15.6	26.9	215.2	407.7	443.2
15.7	18.2	19.7	80.2	102.4	103.9	12.1	8.8	8.1	3.8	4.4	3.3	96.1	115.6	115.3
4.2	5.9	6.2	99.8	113.0	107.2	17.0	21.8	21.9	2.3	3.2	3.4	119.1	138.0	132.5
12.9	24.6	24.6	47.0	118.5	130.5	33.3	49.2	50.3	4.9	5.3	6.1	85.2	173.0	186.9
37.9	48.6	47.8	219.6	262.0	239.6	142.1	103.7	69.8	4.5	13.1	13.0	366.2	378.8	322.4
146.5	265.3	293.7	743.3	1 312.8	1 361.2	199.5	309.1	297.3	14.2	28.9	33.4	957.0	1 650.8	1 691.9
250.1	413.8	441.2	1 346.1	2 222.9	2 265.5	455.6	570.5	540.6	37.1	70.5	86.1	1 838.8	2 863.9	2 892.2
0.8	4.2	3.5												
0.5	0.5	0.9												
—	0.1	0.1												
2.4	9.2	9.2												
12.0	14.0	8.1												
11.9	25.7	21.9												
27.6	53.7	43.7												
92.3	140.6	139.4												
23.1	26.0	30.9												
8.2	9.2	12.1												
26.8	46.2	48.1												
73.8	109.0	102.9												
259.5	468.9	495.4												
483.7	799.9	828.8												

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[a] The commodity groups correspond to SITC Groups 711, 712, 713, 714, 715, 716 and Div. 71.

[b] Belgium-Luxembourg, France, Italy and the Netherlands.

[c] Austria, Denmark, Norway, Sweden and Switzerland, but excluding Portugal.

TABLE XXII.— Output of selected products

Thousands of tons, unless

Commodity	Greece			Ireland			Southern Italy
	1938	1950	1957	1938	1950	1957	1957
I. *Food, beverages and tobacco*							
Sugar, refined	..	..	..	81	85	111	78
Beer (Thousand hl.)	102	202	270	2 365 [a]	3 035 [a]	3 355 [a]	422
Wine (Thousand hl.)	3 744 [b]	3 940	3 954	—	—	—	26 427
Cigarettes (Billion)	5	9	9	3	6	6	..
Tobacco products, total	..	..	..	2	1	1	16
Olive oil	115 [b]	42	164	—	—	—	216
II. *Raw materials*							
Pulp	..	..	..	—	—	—	..
Timber (Thousand sawn cu.m.)	100	122	303	35	22	35	..
Magnesite	168	26	60	—	—	—	—
Iron ore (Ferrous content)	170	2	165	—	—	—	..
Bauxite	180	77	833	—	—	—	262
Iron pyrites	244	88	234	—	—	—	26
Chromite ore (Cr_2O_3 content)	16	5	18	—	—	—	..
Salt	96	97	90	..	..	..	230
Tungsten ore (WO_3 content) (Tons)	—	—	—	—	—	—	—
Sulphur ores	119	40	115	—	—	—	1 394
III. *Fuel*							
Coal	—	—	—	120	172	245	967
Lignite	108	180	998	—	—	—	—
Crude petroleum	—	—	—	—	—	—	1 196
IV. *Chemicals*							
Alcohol	5	8	7	..	..	..	..
Ammonium sulphate	—	—	51	..	..	..	..
Caustic soda	—	1	1	—	—	—	17
Sulphuric acid	52	41	106	55	62	65	..
Superphosphates	68	120 *	197	128	163	124	..
Soda ash	—	—	—	7	7	..	..
V. *Textiles*							
Cotton yarn (excluding mixtures)	16	20	24	(1)	(2)	(3)	8
Cotton fabrics	28 [h]	92 [h]	83 [h]	7 [i]	9 [i]	14 [i]	..
Wool yarn (excluding mixtures)	1	6	5	1	4	6	..
Woollen fabrics	7 [h]	12 [h]	7 [h]	3 [i]	6 [i]	6 [i]	..
Rayon and acetate filament yarn	—	1	1	..	..	..	13
VI. *Base metals*							
Pig iron	—	—	—	—	—	—	..
Crude steel	—	—	—	20	14	35	..
VII. *Engineering products*							
Radio sets (Thousand)	—	—	—	..	50	43	..
Electric motors (Thousand HP)	..	..	..	..	..	..	..
Electric transformers (Thousand KVA)	..	..	..	..	..	..	..
Electric bulbs (Thousand)	..	..	..	..	..	..	..
Generators (Thousand KVA)	..	..	..	..	..	..	..
VIII. *Transport equipment*							
Ships (Thousand GRT)	—	—	—	—	—	1	..
Bicycles (Thousand)	—	—	—	..	..	..	..
Lorries (Thousand)	—	—	—	..	..	..	..
Locomotives (Unit)	—	—	—	..	..	..	..
Tractors (Unit)	—	—	—	..	..	..	..
Railway wagons (Unit)	..	..	..	..	..	..	..
IX. *Building materials*							
Cement	308	395	1 233	109	440	452	..
Flat glass	..	..	..	..	..	..	..
X. *Paper*	21	27	55	15 [n]	24 [n]	38 [n]	..

Sources : United Nations, *Statististical Yearbook*; and national statistics.

NOTE. — Where data have not been available for the selected years shown above, those for the nearest available year have been used.

[a] Data based on standard barrels of 1.055 specific gravity.

[b] 1934-1938.

[c] Edible vegetable oil.

[d] Including sawn railway sleepers.

in southern Europe and Ireland

otherwise indicated

Portugal			Spain			Turkey			Yugoslavia		
1938	1950	1957	1938	1950	1957	1938	1950	1957	1938	1950	1957
—	—	—	163	177	367	83	197	348	108	85	235
65	129	252	770	604	2 371	27	195	321	427	1 144	1 043
7 888 [b]	8 725	9 576	29 151	14 469	17 365	45	45	50	..	3 350	4 210
1	3	4	6	10	20	11	16	27	5	14	18
3	4	5	17	29	31	14	18	29	28	41	49
46 [b]	40	101	320 *	172	311	34	52	43	21 [c]	25 [c]	33 [c]
5	6	57	16	26	87	8	12	39	38	45	139
738	550	620	725 *	940	1 221	303 [d]	242	492	1 865	2 942	1 838
—	—	—	—	10	38	—	—	—	41	59	212
—	—	31	1 196	1 044	2 519	50	143	722	279	354	900
—	—	—	—	12	8	—	—	—	406	206	888
718	613	667	2 727 [e]	1 490	2 260	—	—	—	150	117	313
—	—	—	—	—	—	107	207	470	19	31	39
..	..	313	254	1 186	1 352	262	310	421	74	131	148
1 831	1 588	2 589	140	510	718	—	—	..	—	—	—
323 *	276	307	1 091	715	1 085	—	—	—	63	53 *	141
308	419	499	5 693	11 043	13 931	1 744	2 832	3 969	450	1 154	1 227
18	94	184	171	1 344	2 519	76 [f]	747 [f]	1 726 [f]	5 287	11 665	16 780
—	—	—	—	—	—	—	17	298	1	110	396
31	44	53	..	469	706	8 [g]	52 [g]	147 [g]	4 467 [g]	9 304 [g]	19 735 [g]
..	..	61	..	14	155	..	3	4	—	—	7
..	7	12	..	68	121	.	1	1	11	19	44
78	148	239	87	456	980	..	11	22	23	38	124
190	314	406	190	940	1 486	..	13	12	28	39	216
4	13	11	..	77	127	—	—	—	20	32	72
21	36	35	49	58	61	20	30	27	19	30	44
16	28	26	43	50	49	36 [h]	101 [h]	157 [h]	111 [i]	146 [i]	207 [i]
3	4	6	15	11	13	5	7	9	6	14	13
2	3	4	..	..	..	2 [h]	3 [h]	5 [h] [j]	12 [i]	24 [i]	34 [i]
—	1	2	1	10	16	—	—	—	14 [i]	6 [i]	14 [i]
—	—	—	442	679	999	13	113	218	116	226	737
—	—	—	574 [k]	815 [k]	1 345 [k]	—	91	176	230	428	1 049
—	—	—	..	..	..	..	..	..	—	26	209
—	—	53	..	534	621	..	..	..	..	..	..
—	—	137	..	1 173	3 434	..	..	..	—	117	794
1 157	3 548	6 956	..	..	..	..	..	..	2 522 [l]	3 666 [l]	12 747 [l]
—	—	—	..	151	83	..	..	..	..	..	..
..	7	10	..	27	109	—	..	2	4	3	69
—	—	8	66	144	188	—	—	—	—	11	86
..	..	..	..	—	7	—	—	—	—	1	4
..	..	..	23	46	45	—	—	—	70	30	41
..	..	..	..	188	1 508	—	—	—	—	53	4 032
—	..	66	..	873	2 598	..	..	..	—	1 299	1 013
270	573	979	..	2 103	4 499	287	396	1 261	894	1 219	1 983
5 [f]	9	6	..	..	8 405 [m]	..	..	..	1 678 [m]	2 182 [m]	5 526 [m]
30	46	91	116	170	282	9	18	54	49	71	151

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[e] Copper and iron pyrites.
[f] State-owned mines only.
[g] Thousand hectolitres.
[h] Million metres.
[i] Million sq. m.
[j] From 1953 government production only.
[k] Ingots only.
[l] High-voltage bulbs.
[m] Thousand sq. m.
[n] Other than newsprint.

TABLE XXIII

Changes in the structure of active population

Thousands and percentages

Item	Greece		Ireland		Southern Italy		Portugal		Spain		Turkey		Yugoslavia	
	Total 1958	Increase 1928 to 1958	Total 1957	Increase 1936 to 1957	Total 1951	Increase 1936 to 1951	Total 1957	Increase 1930 to 1957	Total 1957	Increase 1930 to 1957	Total 1955	Increase 1935 to 1955	Total 1957	Increase 1931 to 1957
	Thousands													
Agriculture	1 390	116	443	−192	3 627	351	1 670	283	5 197	1 045	9 633	3 847	5 165	−143
Industry	700	195	223	56	1 493	264	890	349	2 629	838	1 130	485	3 819	2 171
Construction			93	12					707	269				
Other	980	388	447	−8	1 443	133	940	326	3 167	814	1 130	548		
TOTAL	3 070	699	1 206	−132	6 563	748	3 500	958	11 700	2 966	11 893	4 880	8 984	2 028
	1928	1958	1936	1957	1936	1951	1930	1957	1930	1957	1935	1955	1931	1958
	Percentage of total active population													
Agriculture	54	45	47	37	56	55	55	48	48	44	83	81	76	62
Industry	19	23	13	18	21	23	16	25	20	23	9	9	11	42[a]
Construction	2		6	8			5		5	6				
Other	25	32	34	37	23	22	24	27	27	27	8	10	13	
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Sources : See Appendix B.

NOTE. — Owing to the differences in the methods of classifying women active in agriculture, thei share in total active agricultural population is as high as 55 per cent in Turkey and 40 per cent in Yugoslavia.

[a] See Appendix B.

TABLE XXIV. — Exports of selected foods, wine and tobacco from southern Europe

Thousands of tons (unless otherwise indicated) and volume index numbers — Annual averages

Commodity and period [a]	Greece [b]	Italy [c]	Portugal	Spain	Turkey [d]	Yugo-slavia	Total of six countries
Wine *(millions of litres)*							
1909-1913	63	151	108	352	—	..	674
1924-1928	92	139	112	410	—	3	756
1934-1938	38	133	82	104	—	2	359
1950-1952	18	97	112	85	—	15	327
1953-1955	27	119	133	125	—	17	421
1956-1957	26	190	184	145	—	41	586
Table grapes							
1909-1913	—	29	7	46	—	..	82
1924-1928	5	30	5	42	—	1	83
1934-1938	9	26	4 [e]	41	—	4	84
1950-1952	6	38	—	23	—	7	74
1953-1955	12	61	—	43	—	6	122
1956-1957	18	113	—	57	2	9	199
Citrus fruit							
1909-1913	2	389	—	521	..	..	912
1924-1928	3	353	—	727	2	—	1 085
1934-1938	10	329	—	740	2	—	1 081
1950-1952	10	353	—	613	3	—	979
1953-1955	14	357	—	973	8	—	1 352
1956-1957	58	436	—	430	7	—	931
Other fresh fruit							
1909-1913	9	108	8	63	—	..	188
1924-1928	13	113	6	86	—	27	245
1934-1938	15	145	6 [e]	54	—	44	264
1950-1952	9	278	2	59	—	12	360
1953-1955	11	495	4	136	2	19	667
1956-1957	19	719	7	127	—	36	908
Currants and raisins							
1909-1913	111	—	—	23	50	—	184
1924-1928	98	—	—	17	35	—	150
1934-1938	104	—	—	8	62	—	174
1950-1952	75	—	—	4	53	—	132
1953-1955	110	—	—	5	40	—	155
1956-1957	109	—	—	6	54	—	169
Other dried fruit							
1909-1913	17	19	..	7	..	..	..
1924-1928	14	21	..	7	27	33	102
1934-1938	17	10	..	2	33	16	78
1950-1952	12	8	..	4	20	7	51
1953-1955	16	5	5	4	20	20	70
1956-1957	14	5	4	11	18	10	62
Nuts							
1909-1913	—	63	3	29	27	—	122
1924-1928	—	74	4	35	20	—	133
1934-1938	—	77	5 [e]	29	31	—	142
1950-1952	—	83	6	25	31	—	145
1953-1955	—	61	8	16	36	—	121
1956-1957	—	49	4	14	35	2	104
Potatoes							
1909-1913	—	98	—	43	—	—	141
1924-1928	—	218	—	52	—	—	270
1934-1938	—	115	—	70	—	—	185
1950-1952	—	114	—	20	—	—	134
1953-1955	—	176	8	72	—	—	256
1956-1957	—	147	12	134	—	—	293
Other vegetables							
1909-1913	—	177	..	186	61	..	424
1924-1928	—	310	..	198	16	32	556
1934-1938	—	262	..	93	45	34	434
1950-1952	—	423	..	84	38	9	554
1953-1955	3	385	13	236	15	22	674
1956-1957	5	444	5	247	4	29	734
Olive oil							
1909-1913	12	34	3	42	11	—	102
1924-1928	12	31	3	74	5	—	125
1934-1938	15	21	5	45	5	—	91
1950-1952	3	11	9	38	1	—	62
1953-1955	9	10	6	28	—	—	53
1956-1957	13	9	4	32	—	—	58
Tobacco, raw							
1909-1913	9	1	—	—	29	..	39
1924-1928	48	3	—	—	34	2	87
1934-1938	44	5	—	—	30	4	83
1950-1952	36	9	—	—	55	7	107
1953-1955	52	12	—	—	65	8	137
1956-1957	59	12	—	—	75	18	164
Sardines							
1909-1913	—	—	34	23	—	—	57
1924-1928	—	1	40	10	—	—	51
1934-1938	—	2	43	13	—	—	58
1950-1952	—	—	25	4	—	—	29
1953-1955	—	—	53	—	—	2	55
1956-1957	—	—	45	—	—	—	45
Total of commodities listed (volume index 1924-1928 = 100) [f]							
1909-1913	53	87	86	83	113	..	..
1924-1928	100	100	100	100	100	100	100
1934-1938	95	95	100	68	117	109	88
1950-1952	66	117	80	56	145	100	86
1953-1955	97	129	117	79	162	118	108
1956-1957	111	169	117	64	181	245	120
Percentage share of above agricultural products in total exports [g]							
1924-1928	83	16	56	45	53	6	..
1956-1957	66	14	22	34	55	12	23

Sources : National statistics.

[a] In some cases the averages refer to periods slightly different from those shown in the table, as follows: Greece, 1910-1913; Spain, 1910-1913, 1934-1937 and 1950-1951; Turkey, 1911-1913.

[b] After the first world war the territory of Greece doubled as a result of the incorporation of areas previously belonging to Turkey.

[c] In 1938-1939 more than 50 per cent of the exports of citrus fruit, nuts, potatoes and other vegetables originated in southern Italy; the main provenance of exports of table grapes, other fresh fruit, wine and obacco was northern Italy.

[d] Figures for the period 1911-1913 are not fully comparable with those for later years, owing to territorial changes. However, the exports in 1911-1913 of citrus fruit and dates which originated in areas later ceded to non-European countries have been excluded.

[e] Average of years 1934, 1935, 1937 and 1938.

[f] Based on typical export unit values for the period 1924-1928.

[g] Based on current values.

TABLE XXV

Main elements in the balance of payments of five southern European countries and of Ireland

Millions of dollars at current exchange rates : annual averages

Country and period		Goods account			Invisibles (net) [a]		Balance on goods and services account (net)	Donations (net)		Long-term capital (net) [b]		Short-term capital and monetary gold (net) [b]	Balancing item
		Exports (f.o.b.)	Imports (f.o.b.) [c]	Balance	Total	of which: Foreign travel		Private	Official	Private	Official		
Greece	1938	94	142	−48	19	3	−29	24	..	..	1	3	1
	1948	89	337	−248	−37	3	−285	11	200	..	39	28	7
	1952-1953	124	236	−112	5	9	−107	32	95	..	−10	−11	1
	1954-1956	193	354	−161	25	18	−136	57	51	..	3	25	—
	1957-1958	233	479	−246	64	24	−182	88	5	..	8	81	—
Portugal (escudo area)	1948	196	433	−237	17	6	−220	26	—	6	−10	192	6
	1952-1953	291	325	−34	28	3	−6	13	2	3	6	−31	13
	1954-1956	347	392	−45	34	7	−11	23	2	1	10	−27	2
	1957-1958	373	482	−109	54	14	−55	49	—	2	13	−15	6
Spain	1953	406	519	−113	68	92	−45	32	—	8	46	−41	—
	1954-1956	396	631	−235	84	91	−151	55	24	13	13	45	1
	1957-1958	458	754	−296	95	72	−201	55	25	12	−18	127	—
Turkey	1938	115	107 *	8 *	..	..	..	..	..	..	..	..	..
	1948	197	249	−52	−30	−1	−82	7	1	—	5	53	16
	1952-1953	380	479	−99	−63	−4	−162	1	50	8	−5	111	−3
	1954-1956	318	406	−88	−16	−8	−104	2	60	6	14	56	−34
	1957-1958	289	312	−23	−54	−11	−77	2	76	14	30	—	−45
Yugoslavia	1938	115	114	1	—	3	1	7	..	—	−3	−6	1
	1948	322	378	−56	6	−1	−50	17	55	—	−36	25	−11
	1952-1953	222	408	−186	8	2	−178	23	−121	—	20	16	−2
	1954-1956	279	444	−165	29	3	−136	28	89	—	17	2	—
	1957-1958	430	686	−256	58	4	−198	50	50	—	4	105	−11
Ireland	1938	117	201	−84	56	12	−28	15	—	6	−44	28	23
	1948	197	548	−351	202	133	−149	32	—	..	−15	94	38
	1952-1953	297	490	−193	118	52	−75	30	—	..	16	6	23
	1954-1956	296	514	−218	121	54	−97	31	—	..	17	34	15
	1957-1958	342	504	−162	131	55	−31	34	—	..	−16	3	10
Total of above: [d]													
including Ireland	1952-1953 [e]	1 720	2 457	−737	164	154	−573	131	268	(19)	73	50	32
	1954-1956	1 829	2 741	−912	277	165	−635	196	226	(20)	74	135	−16
	1957-1958	2 125	3 217	−1 092	348	158	−744	278	156	(28)	21	301	−40
excluding Ireland	1952-1953 [e]	1 423	1 967	−544	46	102	−498	101	268	(19)	57	44	9
	1954-1956	1 533	2 227	−694	156	111	−538	165	226	(20)	57	101	−31
	1957-1958	1 783	2 713	−930	217	103	−713	244	156	(28)	37	298	−50

Sources: IMF Balance-of-Payments Yearbooks; except for Spain in 1953 (*Información comercial española*, July 1959).

[a] Including non-monetary gold.

[b] Long-term private capital for Greece and Ireland is included with short-term capital and monetary gold.

[c] For Yugoslavia and Ireland (and Greece in 1938), c.i.f. For Portugal, imports of metropolitan area have been adjusted to an f.o.b. basis; imports of overseas provinces are c.i.f.

[d] No allowance has been made for transactions among these countries. Commodity trade among them has accounted for less than 5 per cent of their total trade in recent years.

[e] For Spain, 1953 only.

Appendix B

NOTES ON SOURCES AND METHODS

(For page references to the notes on particular tables, see the Table of Contents, pp. v-xii)

GENERAL

As in previous years, the statistics given should be regarded in the first place as basic documentation for the economic analysis made in the SURVEY. They are therefore somewhat different in nature from statistics normally published in statistical yearbooks and other publications of a purely statistical nature. First, when no official figures are available, it is often preferable to have an estimate rather than no figure at all. Consequently, estimated figures which have a wider margin of error than is usually allowed in statistical publications are sometimes shown in the various tables. In the second place, the available national statistics have, for the sake of comparability as between countries, often been adjusted to more uniform definitions. For this reason, the figures shown differ in many instances from those given in national publications, or in other publications of the United Nations and its specialized agencies. Finally, the methods of compilation have been chosen with a view to the special use for which the data are intended. This does not necessarily mean that for other purposes other methods might not have been preferable.

Where a table gives totals for a number of countries, these totals always refer to the same group of countries for each period shown. In cases where figures for a given country are not available for one or more periods, estimates of these missing figures are included in the totals. Except where otherwise stated, area totals include estimates for those countries for which no data are available, or assume that the series for the missing country moved in proportion to the average for the other countries.

Slight discrepancies between constituent items and the totals shown in the tables are due to rounding.

In most cases, the tables include information received up to 19 February 1960. In general, the more recent figures are to be regarded as provisional, and subject to revision.

Methods of Reference to Sources

Wherever the sources for a table have been few and the methods used self-evident, the necessary references have been given under the table. All sources referred to in this appendix are listed systematically at the end of the SURVEY and are given a number, by which they are referred to in the succeeding notes.

Information on sources is given in the following order: first the department, institution, or other authority responsible for the publication (or in the case of books, the author);[1] where the site of the issuing authority is not the capital city, the place of issue is indicated, this being followed by the title of the publication; the place of publication is then given, if different from the place of issue, and is followed by the mention of the publishing house (where different from the issuing authority) and (for non-periodical literature) the date of publication. Finally, for periodicals an indication is given of the frequency of publication. Such details are omitted when they are already apparent from the wording of the title (e.g. *Monthly Digest of Statistics* for periodicity, and *Monthly Report of the Deutsche Bundesbank* for both periodicity and issuing authority). The publisher is not normally mentioned for official publications. In addition to the foregoing exceptions, there are a few cases where full bibliographical detail is not known. If no particular issue of a periodical is indicated, it is to be understood that various issues of it were used as a source for the statistics.

The sources quoted in this appendix were, in many cases, supplemented by the *ECE Statistical Indicators of Short Term Economic Changes in ECE Countries* (monthly).

For national trade statistics the following national sources were used:

Albania **1.4**; Austria **2.1**; Belgium **3.2**; Bulgaria **4.2, 4.3, 4.5**; Czechoslovakia **5.4, 5.5**; Denmark **6.1, 6.2**; Finland **7.1, 7.2**; France **8.1, 8.2** ; eastern Germany **9.2, 9.3, 9.4** ; western Germany **10.2, 10.4** ; Greece **11.1** ; Hungary **12.2, 12.3, 12.8** ; Iceland **13.1, 13.2** ; Ireland **14.1, 14.2** ; Italy **15.2, 15.3** ; Netherlands **17.1, 17.2** ; Norway **18.1, 18.2** ; Poland **19.2, 19.3** ; Portugal **20.1, 20.2** ; Spain **22.1, 22.2, 22.3** ; Sweden **23.2, 23.3** ; Switzerland **24.1, 24.2** ; Turkey **25.1, 25.2** ; Soviet Union **26.64** ; United Kingdom **27.3, 27.4, 27.5, 27.6** ; Yugoslavia **28.1, 28.2, 28.4, 28.8** ; United States **29.1.**

In the sources to certain tables relating to eastern Europe and the Soviet Union, reference is made to plans, plan fulfilment reports, statistical yearbooks and bulletins. The sources in which such information can be found are set out in the table below (reference is to the list of sources on pp. 17-24 of Appendix B).

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[1] For newspapers and ordinary commercial periodicals, this information is not given.

Country	Plan			Plan fulfilment report		Statistical yearbook	Statistical bulletin
	1959	1960	1965	1958	1959		
Albania	1.1 (30.XII.58)	1.1 (24.XII.59)	1.3 (4 & 5.59)	1.1 (1.II.59)	1.1 (31.I.60)	1.4	..
Bulgaria	4.1 (13.III.59)	4.1 (26.XII.59)	4.1 (20.I.59)	4.1 (25.I.59)	4.1 (26.I.60)	4.2	4.3
Czechoslovakia	5.1 (24.XII.58)	5.1 (24.XII.59)	5.1 (29.IX.59. 17.X.59)	5.1 (11.II.59)	5.1 (9.II.60)	5.4	5.5
Eastern Germany	9.1 (21.I.59)	..	9.5	9.1 (3.II.59)	9.1 (7.II.60)	9.2	9.3, 9.4
Hungary	12.1 (10.XII.58)	12.1 (19.XII.59)	12.5 (X.59)	12.1 (18.I.59)	12.1 (17.I.60)	12.2, 12.8	12.3
Poland	19.5 (1.III.59)	19.5 (31.XII.59)	19.1 (22.III.59)	19.1 (10.II.59)	19.1 (9.II.60)	19.2	19.3
Rumania	21.1 (2.XII.58)	21.1 (6.XII.59)	.. ..	21.1 (3.IV.59)	21.1 (29.I.60)	21.3	21.4
Soviet Union	26.1 (23.XII.58)	26.1 (28.X.59)	26.2 (8.II.59)	26.1 (16.I.59)	26.1 (22.I.60)	26.75	..

For references to reports on 1958 see Appendix B (p. 2) of the SURVEY for 1958. Except in eastern Germany, no 1965 plans have yet been enacted by the respective legislatures: references are to party directives or other official proposals.

I. THE WESTERN EUROPEAN ECONOMY — RECENT DEVELOPMENTS AND PROSPECTS

Changes in volume of engineering output and trade, 1952-1954 to 1956-1958 (Chart 4)

(1) To express the increase in the export volume between 1952/54 and 1956/58 as a percentage of the production volume increase between the same periods, the two series were expressed in " dollars at 1953 prices ". Data on deliveries in the nine countries during that year were taken from **35.13**, to which data the OEEC production volume index (**35.1**) was applied. To data on exports in 1953 were applied the index numbers of export volume derived from Appendix Table I (covering groups 8 to 16). For the year 1958, see footnote to Chart 2.

(2) Imports of engineering goods into the nine countries in " 1953 prices " were constructed in the following way: a price index consisting of a weighted average of the export price indices of the nine countries was applied to import data in current prices of 1952 to 1958.

Availabilities equal deliveries (output) *minus* exports *plus* imports.

Exports of selected European countries and the United States by main commodity groups and by areas of destination (Appendix Table I)

(a) *Sources*. — The basic statistical material was obtained from **35.2**.

(b) *Areas of destination*. — Areas of destination are, in most cases, the same as those shown in the original source and only a few rearrangements have been made as follows:

Classification in Table I	*OEEC classification*
Latin America	Central America *plus* South America
Overseas sterling area	Non-member countries in sterling area *plus* British overseas territories
Other in Africa (in " Overseas Sterling area ")	Non-member countries in the sterling area, in Africa, *less* Union of South Africa
Affiliated overseas territories	Overseas territories of member countries *less* British overseas territories
Other overseas countries	Other non-member countries of the world in Africa and in Asia
Other in Asia (in " Other overseas countries ")	Other non-member countries of the world in Asia *less* China and Japan
Total overseas territories	Total World *less* western Europe (including Finland, Spain and Yugoslavia) and eastern Europe.
Western Europe	Metropolitan member countries *plus* non-member countries in other Europe (covering Finland, Spain and Yugoslavia)
Highly industrialized countries	Eastern Europe, western Europe (including Finland, Spain and Yugoslavia), Japan and North America
Semi-industrialized countries	Argentina, Brazil, Chile, Mexico, Union of South Africa, Oceania, India, Pakistan and China.
Non-industrialized countries	Total world *less* highly and semi-industrialized countries

Figures for " Total overseas countries " were obtained by deducting exports to western and eastern Europe from exports to the world. Consequently, whenever figures for exports to Europe were not complete, the unallocated part is automatically included in overseas exports (this applies, in particular, to United

States exports). For the same reason, figures given for individual overseas areas may not necessarily add up to " total overseas countries ". Figures for " non-industrialized countries " also consist of the difference between exports to the whole world and those to " highly industrialized countries " and " semi-industrialized countries ".

United States exports include an important amount of exports specified by commodity groups, but not by destination. The value of these exports was distributed as follows:

ECE commodity group	*Millions of current dollars, f.o.b.*	
	1957	*1958*
1.	84.1	84.7
of which : Fruit and vegetables	*43.8*	*43.7*
Cereals and preparations	*9.5*	*9.1*
Tobacco	*1.6*	*1.8*
2.	22.0	20.9
3.	20.1	17.8
of which : Iron and steel	*14.2*	*11.9*
4.	1.3	1.4
5.	2.0	1.9
6.	18.8	17.9
7.	16.8	18.0
8.	64.3	64.8
9.	10.5	10.1
10.	9.3	9.2
11.	129.4	119.1
12.	79.5	81.4
13.	9.9	10.5
14.	1.6	0.7
15.	48.9	47.2
16.	15.1	15.3
17.	74.4	75.7
18.	82.6	84.3
of which : Cotton fabrics	*18.3*	*18.1*
19.	21.6	21.9
20.	168.3	177.2
TOTAL	880.5	880.0

These values include ships' stores and bunkers, and were added to " Total overseas countries ", but they are excluded from " Non-industrialized countries ".

The total of the United States exports unspecified by destination in the OEEC statistics (see above) has been allocated by area by means of **29.2** which gives a complete distribution of United States exports by area.

(c) *Commodity groups.* — The 20-group classification used in Table I is given in terms of the Standard International Trade Classification (SITC) as below:

Commodity classification of twenty groups in terms of the SITC

Commodity group	*SITC Code number*	*Sub-group*
1. Food, drink and tobacco	Sections 0, 1; division 92	Live animals and meat — divisions 00, 01 (Denmark, Netherlands) Dairy products — division 02 (Denmark, Netherlands) Cereals and cereal preparations — division 04 (Denmark, France, Italy, and United States) Fruit and vegetables — division 05 (France, Italy, Netherlands and United States) *of which :* Fruit — groups 051, 052, 053 (Italy) Vegetables — groups 054, 055 (Italy) Beverages — division 11 (France) Tobacco and manufactures — division 12 (United States)
2. Mineral fuels and petroleum products	Section 3	
3. Metallic ores and base metals	Divisions 28, 68	Ores and scrap — division 28 (France, Norway and Sweden) Iron and steel — group 681 (Belgium-Luxembourg, France, western Germany, Italy, Norway, Sweden, United Kingdom, and United States)
4. Oil-seeds, fats and oils	Section 4, division 22	
5. Textile fibres, natural	Division 26 *less* group 266	
6. Selected construction materials	Division 81, groups 661, 662, 664	
7. Other raw materials	Divisions 21, 23, 24, 25, 27 and 29	Timber — division 24 (Sweden) Pulp and waste paper — division 25 (Sweden)
8. Metal manufactures	Division 69	
9. Power generating (except electric) machinery	Group 711	
10. Agricultural machinery	Group 712	
11. Metal-working, mining, construction and other industrial machinery	Groups 714, 715, 716	
12. Electric machinery	Group 721	
13. Tractors, other than steam	Group 713	
14. Railway vehicles	Group 731	
15. Road motor vehicles	Group 732	
16. Other vehicles	Groups 733, 734, 735	
17. Chemicals	Section 5	
18. Textile manufactures and clothing	Divisions 65 and 84, group 266	Textile yarns (including synthetic fibres — groups 266 and 651 (France, western Germany, Italy and United Kingdom) Cotton fabrics — group 652 (France, western Germany, Italy, United Kingdom and United States) Other fabrics — division 65 *less* groups 651 and 652 (France, western Germany, Italy and the United Kingdom)
19. Paper, manufactures of wood and paper (excluding furniture)	Divisions 63 and 64	
20. All other commodities	Section 8 *less* divisions 81, 84; divisions 61, 62, 67, 91, 93; groups 663, 665 and 666	Instruments and watches — groups 861, 864 (western Germany and United Kingdom)

Owing to insufficient information, the commodity classification used for Dutch exports differs slightly from that of other countries, and the comparability with other countries is affected as follows:

(1) SITC groups 651, 652 and part of 653 are excluded from ECE group 18 and included in group 20.

(2) SITC group 689 is excluded from ECE group 3 and included in group 20.

(3) SITC group 691 is excluded from ECE group 8 and included in group 20.

II. ECONOMIC GROWTH IN EASTERN EUROPE AND THE SOVIET UNION

Sources of data on credits granted and received (footnote 44)

Press releases by official news agencies

Allgemeiner Deutscher Nachrichten Dienst, Berlin (20 August 1958); Bulgarian Telegraphic Agency (29 December 1958); Magyar Távirati Iroda, Budapest (29 December 1958 and 28 December 1959); TASS (4 November 1958); Radio Prague (14 September 1959).

Other Sources

28.14 (27 August 1959); **26.2** (23 December 1959); **4.1** (22 December 1959); **26.89** (17 March 1959, 9 June 1959 and 15 September 1959) and **26.90** (August 1959).

III. THE LONG-TERM PLANS IN THE SOVIET UNION AND EASTERN EUROPE

Population data

The population figures used to compute per capita statistics in this chapter were as follows (mid-year, in thousands):

	1951	*1958*	*1965 estimate*
Albania	1 242	1 507	1 840
Bulgaria	7 258	7 728	8 240
Czechoslovakia	12 532	13 469	14 230
Eastern Germany	18 353	17 355	18 210
Hungary	9 418	9 857	10 450
Poland	25 271	28 783	32 460
Rumania	16 464	18 059	19 730
Eastern Europe	*90 538*	*96 758*	*105 160*
Soviet Union	183 300	206 900	229 000
OEEC area	274 192	291 625	305 000

1951 figures were taken from **30.3** (1957), except for the Soviet Union, which was extrapolated from the 1958 estimate by applying the 12.9 per cent increase shown in **26.75** derived from a comparison of the total and per capita national income series. *1958* estimates were taken from **30.2**, December 1959, except for the Soviet Union, which was extrapolated from the 1959 Census on the *pro rata* natural increase shown for 1958 in **26.75**.

1965 projections were based on those elaborated in **31.1** (1957), Chapter VII, pp. 56-58, except for Albania (projected at rate of natural increase shown for 1955 to 1958 in **1.4** (1959); Czechoslovakia (from **5.7**, p. 21); Hungary (medium projections from **12.9**, No. 1, 1958, pp. 88-89, adjusted for mid-year); Rumania (projection at 1958 rate of natural increase as shown in **21.3** (1959); Soviet Union (as shown by total and per capita targets in **26.75**, pp. 120 and 121); and the OEEC area (**35.11**).

Estimates of components of net domestic product in the Soviet Union (Text table on page 5.)

Except where otherwise stated, all data were taken from **26.75**, to which the page numbers below refer. The proportions of components in an SNA-defined product aggregate (**30.8**) were taken from **31.2** (Vol. 9, No. 1, pp. 95-103) except for material product, a rouble value for which was obtained by deducting the increment shown for 1955-1958 (index number on p. 95) from the 1,250 billion rouble value implied for 1958 by Mr. Khrushchev (**26.1**, 15 January 1960). State social outlays were taken from p. 108 and indicators of their service component from numbers employed in all non-productive services, other than administration, given on p. 659. Passenger transport in passenger/km. was taken from p. 541 (the two services not included therein, air and taxi traffic, taken from data shown on pp. 601 and 595 respectively, exhibited faster rises, except for air transport in the period 1950-1955). Cinema attendances for the years 1950-1958 were taken from p. 867, and the increase in the number of cinemas (p. 94) was assumed to represent the rate of growth of attendance for 1959-1965 Plan. Government and defence outlays were taken from p. 900. The numbers in the armed forces were from **26.1** (*loc. cit.*) and in the civil services (and other administrative functions) from p. 659. Rent payments, actual and imputed, were assumed to change in direct and constant proportion to the urban housing stock (from p. 641 for 1950-1958 and p. 107 for 1958-1965 Plan).

These indicators were weighted by the 1955 shares of net product on an SNA definition to derive a product increment for 1950-1958. Where indicators were not available for the 1958-1965 Plan period, the assumptions were made that the service content of state social outlays would rise as fast as the total outlay and that passenger transport and government and defence outlay would change at the same rate as in 1955-1958.

Some main indicators of economic developments, past and planned (Table 1 and text table on p. 40)

The data are derived from national plans, plan directives and plan fulfilment reports; national statistical yearbooks and bulletins (see table on p. 2 of this Appendix) and, in addition:

Czechoslovakia : **5.1**, 24-25 December 1959, 29 January 1960. **5.10**, Nos. 32, 51, 52, 1959. **5.2**, 8 January 1960.

Eastern Germany : **9.7**, No. 11, 1959, p. 1487; **9.6**, No. 18, 1959, p. 4; **9.9**, 28 January 1960.

Hungary : **12.6**, No. 10, 1959, p. 1058, and **12.7**, No. 11, 1959, p. 4.

Poland : **19.1**, 22 March 1959 and **19.A.**

Soviet Union : **26.60**, No. 4, 1959, p. 93; **26.1**, 28 October 1959 and 22 January 1960.

Data for *eastern Germany* are at current prices; for *Czechoslovakia* they are at prices of 1 July 1954 for industrial output, average realized prices of 1955/56 for agricultural output, 1 April 1955 for domestic product and consumption, 1959 prices for investment, and 1953 prices up to 1958 and current prices thereafter for imports and exports; for *Hungary* at 1954 prices; for *Poland* in 1956 prices (except for foreign trade, at 1955 prices up to 1958 and at current prices thereafter); for the *Soviet Union* at 1955 prices (except for investment, at 1955 prices on 1956 building tariffs).

The 1959-1965 data for *Czechoslovakia* are a combination of 1959 actual rates of growth with those planned for 1960 and 1961-1965.

The figures for growth of *imports and exports* during 1959-1965 for *Czechoslovakia* are not " derived ", since the foreign trade plans are stated in terms of increases over the level of 1957 and

1958. Thus, for these two columns, the 1961-1965 plan figures are, in fact, " derived ".

The investment data for Hungary for 1957, 1958 and the plan for 1961-1965 have been adjusted to a 1954 price basis by using the following price indexes derived from official sources:

	Price index		
	Base year [a] *= 100*	*1954 = 100*	*Source*
1957	108.7 (1954)	108.7	**12.2** (1949-1955), p. 45, and *ibid.* (1957), p. 57; **12.4**, p. 58.
1958	105.8 (1957)	115.0	**12.8**, 1959, p. 43.
Plan for 1961-1965 (at 1 January 1959 prices) . .	173.0 (1958)	199.0	**12.6**, No. 7, 1959, p. 729.

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[a] Given in parentheses after the index.

From an alternative source (**12.6**, No. 10, 1959, p. 1057) a price index of 220-222 (1954 = 100) can be derived for the investments of the 1961-1965 Plan. This index has not been used since it was not possible to ascertain the reasons for the difference between the above detailed price increases and the total rise shown by this latter index.

The secretariat has been informed by the Hungarian authorities that the calculation of a definitive price index is now in progress.

The 1959-1965 data for Poland are in general derived from comparison of 1958 data with 1965 targets.

For the *Soviet Union*, the 1965 Plan for gross *agricultural output* was given in the Plan Directives; but the breakdown between livestock and plant produce was estimated. The plan document gave output targets for the principal animal products (meat, milk, eggs and wool) and these were weighted by 1956 average realized prices (the basis of the official index); the gross value of crop production was the residual shown by deducting the estimated animal production from the planned global output.

The average realized prices in 1956, used to weight the livestock targets, were (in roubles per ton): 7,250 for meat (live weight), 1,220 for milk, 24,930 for greasy wool, and 600 for eggs (per thousand). These were derived as the product of 1956 quantities and prices sold in the four main transaction-areas (collective farm deliveries to state procurement agencies, state farm sales, commission sales by retail co-operatives, and collective-farm markets); non-marketed production (auto-consumption) was valued at the average realized prices so shown. 1956 disposals by transaction-area were taken from **26.75** and **26.38**, Nos. 3 and 5, 1958, pp. 58 and 49 respectively, and procurement prices from I. G. Melnikov in **26.88**, supplemented in a few instances by data already cited in **31.2**, Vol. 10, No. 2, p. 18; commission-sale and free market prices were taken from the unit-values and index numbers given in **26.75**.

The growth and structure of gross industrial output, past and planned (Table 15)

Soviet Union : **26.1**, 28 October 1959 and 22 January 1960 (Plan Fulfilment Report); and **26.75**.

Czechoslovakia : **5.4**; **5.1**, 24, 25 and 30 December 1959; 3, 23 and 29 January and 9 February (Plan Fulfilment Report) 1960; **5.13**, No. 10, 1959 and No. 1, 1960; **5.6**, No. 11, 1959; **5.8**, Nos. 9 and 11, 1959; Plan Directives 1951-1965 in **5.1**, 29 September and 17 October 1959.

Eastern Germany : **9.2**, **3** and **4**; **9.1**, 7 February 1960; and **9.5**.

Hungary : **12.3**, No. 2, 1960, p. 16, and **12.2**, 1949-1955, pp. 122-125 (1951-1959); **12.1**, 19 December 1959, and 29 January 1960; and **12.5**, No. 10, 1959, pp. 116-123 (plans for 1960 and 1959-1965).

Poland : **19.4**; **19.2** (1959) and plan documents.

Production of primary energy in eastern and western Europe and the Soviet Union (Table 16)

Except where otherwise stated below, all data for eastern Europe and the Soviet Union were taken from Appendix Table I and from **31.2**, Vol. 11, No. 1 (Appendix Tables I and V). Hungarian data on the output of coal, petroleum and natural gas are available in both physical quantities and calorific content. Data on coal output for the OEEC area and Poland were available only on a washed basis, whereas other countries provide their data on a gross basis. The OEEC data on the other hand count each ton of hard coal as 7,000 Mcal, whereas the eastern European and Soviet sources convert physical tons into calorific contents varying with the actual property of the coal. It was assumed that these trends offset each other, and Polish data were computed on the OEEC formula. Where no conversion factors were given in the original eastern European source the coefficients for the Soviet Union cited by Budnitsky (**26.85**, pp. 40-41) were used. Hydro-electric output was computed as equivalent to the standard fuel consumed per kWh in thermal electricity generation. No figures were inserted for nuclear power, but estimates are made for Table 17 (see below). In some cases 1951 statistics differ from those in **30.5** (generally because that publication was prepared before statistical yearbooks were published by eastern European governments) and the 1958 statistics from **30.6** (because different conversion coefficients were used).

For *Albania* 1951 and 1958 outputs were taken from **1.4**, 1959 (1950 data had to be used for 1951 in the case of hydro-electricity) and the targets for petroleum and electric power from **1.3** (No. 4, 1959, pp. 18-25). The proportion of fuel production supplied by natural gas in 1955, 1960 Plan and 1965 Plan in **1.3** (No. 5, 1958, pp. 26-27) was assumed to represent the shares in 1951, 1958 and 1965 Plan respectively and the proportion for firewood in 1955 was shown as a calorific value adjusted for population changes. It was assumed that coal output would double by 1965 and that its content would not alter. As the 1965 electric power target was not broken down by source, the 1958 proportion of hydro-electric supply was applied to the 1965 overall goal. In view of the high sulphur content of Albanian crude oil, the conversion factor of 1.37 given for sulphurous Soviet crude in **26.85** was used in place of the 1.43 coefficient used for other crudes.

Supplementary data for *Bulgaria* for 1951 and 1958 were taken from **4.2** and 1965 targets from **4.1** (20 January 1959). The range cited in the case of coal was put in the table as the mid-point of that range. One-third of the output of electricity (the 1958 proportion) was assumed to be hydro-generated in the 1965 Plan. To derive totals, it was assumed that petroleum output would double between 1958 and 1965; in the absence of data on fuelwood consumption in Bulgaria fuelwood consumption per head in Rumania in 1957 was multiplied by population in Bulgaria in each year (for population data see page B-4).

For *Czechoslovakia* all data were derived from **5.4**, **5.5** and the Plan documents.

Additional statistics for *eastern Germany* in 1951 and 1958 were available in **9.2** (1958), except for hydro-electricity in 1951, which was taken from **30.5** (p. 21). As the Plan Law made no mention of hydro-electric projects for the plan period, 1965 output was assumed to be the same as in 1958. Other fuel output was assumed to be slightly above the 1958 level.

Statistics for *Hungary* (including the trade data for Table 17) were taken from **12.8** (1959) and **12.3** (No. 2, 1960, pp. 20-21), **12.5** (No. 10, 1959, pp. 117, 127), **12.1** (19 December 1958 and 2 December 1959) and **12.6** (No. 12, 1958, p. 1258).

Supplementary data for *Poland* were taken from **19.2**. Coal statistics are on a washed basis (whereas for the rest of eastern Europe they are gross). In order to make the series roughly comparable, each ton of hard coal was accounted as having 7,000 Mcal instead of the lower actual conversions used in the original sources.

Statistics for *Rumania* for 1950 and 1957 were given, in terms of standard fuel, in **21.6** (No. 10, 1958, p. 79) and were used for 1951 and 1958 in the case of fuel wood; for other forms of energy these data in terms of standard fuel were compared with physical output in **21.3** (1959) to derive conversion factors. Other data not in this latter source were taken from **21.5** (No. 6, 1957, p. 259) and **31.2** (Vol. 4, No. 1, Appendix A, Table 5). In the absence of a Rumanian plan for 1965, the past output trend was extrapolated for coal and electric power (the hydro-electric share being assumed to be the same as in 1958). The original 1960 target (which is far above current levels) was used for 1965 in the case of crude oil and natural gas (an assumption supported by the current slow rates of growth and the industry's declining share of total investment in recent years up to and including the 1960 annual plan); since natural gas output might expand more rapidly than thus indicated, the estimate should be treated as a minimum.

Soviet coal output on a standardized basis was available in two sources: for 1951 and 1958 in **26.75** (p. 200) and for 1958 and 1965 Plan from A. Grusho and E. Shteingauz in **26.7** (No. 7, 1959, p. 35). The latter allowed for losses during enrichment, and the 1965 figure shown by this source was adjusted in the proportion shown for 1958 as the difference between the two series. **26.75** also gave 1951 and 1958 statistics in terms of standard fuel for petroleum, natural gas and other fuels (peat, shale and firewood). These coincided with 1958 data in Grusho and Shteingauz (**26.7**) for petroleum, natural gas and shale, but the latter's statistics for peat and fuelwood excluded collection of such fuel by the rural population. The difference between the two series shown for 1958 was added to the plan goals for 1965 given in **26.7**. Hydro-electric generation in standard-fuel equivalent was also given in **26.7** and the implied 1958 coefficient per MWh, 0.39 against 0.45 to 0.56 in **26.85**, was applied to the 1951 output given in **26.75** (p. 215).

Production in the *OEEC area* in 1951 and 1958 was taken from **35.7**; conversion factors and 1965 projections were taken from **35.12** (Table 31). The estimate for 'other fuel' in 1955 and 1965 given in **35.12** was also used for 1951 and 1958. Nuclear energy (shown in **35.12**) was omitted.

Apparent consumption of primary energy in selected European countries, with projections for 1965 (Table 17)

Sources: In addition to those quoted for Table 16, the sources used were national trade statistics from statistical yearbooks and **26.64** and the Czechoslovak 1965 Plan (**5.8**, No. 11, 1959, p. 809) for energy consumption by source; it was assumed that the figure for solid fuel given in this latter source referred to coal only.

Methods: The *Hungarian* 1965 data are the mid-points of a stated range; on share of coal and oil imports, see footnote *b*. The estimates of *Soviet* export balances in 1965 were made on the assumption that coal and oil exports would bear the same proportion to output as in 1958, and that Poland (the plan for which has been stated) would be the only purchaser of natural gas. Similarly, Hungary was expected to be the only significant consumer of Soviet electricity in 1965 (supplies through the proposed grid link from Kaliningrad to Kedzierzyn being offset by Polish supplies from Zamość to the west Ukraine). The Hungarian plan envisages the use of 1.0 billion kWh of Soviet power in 1965. The Soviet nuclear energy plan for 1965 was estimated to be at least 17 billion kWh on the assumption that all five plants now under construction would be working at full rated capacity (approximately 2,500 MW) and that the annual utilization and load factors would be the same as assumed for 1965 in the OEEC report (**35.12**, para. 117); the figure of 7 million tons of standard fuel was raised to 10 million tons to allow for the introduction of the first stages of other reactors by 1965 (i.e. to some 25 billion kWh.)

Commodity and area distribution of the trade of four countries in 1958 and 1965 Plan (Tables 27 and 28)

Czechoslovakia

The rise in total imports and exports between 1958 and 1965 is from **5.3** (29 October 1959) . According to **5.1** (18 November and 12 December 1959), the share in total turnover in 1965 of " socialist " countries will be 75 per cent, and of the Soviet Union alone 40 per cent. According to **5.3** (29 October 1959), trade with under-developed countries will be " more than 50 per cent " of all trade with other countries.

The commodity distribution of trade with " socialist " countries is given in **5.9** (No. 4, 1959) and **5.10** (18 September 1959) for *1958* and **5.3** (29 October 1959) for the *1965 plan.*

Eastern Germany: **9.2** (1958); **9.5** and **9.8** (27 October 1959).

Hungary: For growth of total trade and regional shares, **12.7** (No. 1, 1959, p. 11 and No. 11, 1959, p. 4); for share of commodity groups in 1958, **12.4** (p. 10).

Growth of imports and total turnover of fuels and raw materials, **12.1** (15 November 1959) and **12.6** (No. 10, 1959, p. 1024).

Rise in exports of machinery and equipment, **12.6** (No. 11, 1959, p. 1145) and **12.1** (14 November 1959).

Rise in imports of machinery and equipment, **12.1** (2 December 1959).

Rise in imports of consumers' manufactures, **12.6** (No. 11, 1959, p. 1025).

In estimating the rise in exports of foodstuffs and consumers' manufactures, the data in Tables 15 and 28 and statements in **12.6**, No. 10, 1959 (pp. 1031 and 1058) were taken into account.

Poland: **19.2** (1959); **19.1** (22 March 1959); **19.A.**

IV. SOME CHARACTERISTICS OF THE SOVIET SEVEN-YEAR PLAN

(i) Sources and methods for tables

Total output, employment and capital stock of eastern-region industry (Text table on p. 18)

1930 statistics were taken from **26.77** (pp. 72-75).

1940 gross industrial output for all zones in the eastern regions other than the Far East was given by N. Voznesensky in **26.87** (pp. 12, 23 and 49) as 17.7 billion roubles in 1926/27 prices. The same source gave two figures for total gross industrial output: 138.5 billion roubles for all industry and 129.5 billions for large-scale industry. On the basis of the former, these eastern zones are shown as 12.8 per cent, and on the latter as 13.7 per cent. The Far East zone's share was estimated as that of its

1940 share in industrial employment, viz. 2.1 per cent (**26.69**). The eastern regions' share was thus computed as 14.9 to 15.8 per cent. The fact that these computations for 1940 and 1954 show a five-fold rise for the Volga-exclusive region is not necessarily contrary to the statement that the Volga-inclusive regional output rose four-fold between those dates (**26.2**, 17 July 1955).

As no data were directly available for *1955*, the calculation started from 1954. In 1954 the eastern regions, including the Volga Zone, produced about one-third of industrial output and the two zones of Siberia, the Far East, Kazakhstan and Central Asia represented 16 per cent of industrial production (**26.2**, 17 July 1955). Mr. Malenkov, in presenting the Report of the Central Committee to the XIX Party Congress (**26.2**, 6 October 1952) had, however, also stated that the "eastern regions" (Volga Zone included) produced about one-third of gross industrial output in 1952. It is difficult to reconcile this apparent constancy of the Volga-inclusive area's share with the statement in the same sources that its output was in 1952 triple, and in 1954 quadruple, the 1940 level, since country-wide production rose just 27 per cent between 1952 and 1954. The more precise figure for the present coverage of the "east" less the Urals Zone would seem more usable, and this may be enlarged by some 11 per cent to include the Urals, viz. to 27 per cent. In 1940 the Urals Zone produced 6.6 to 7.1 per cent (see above for variants) of industrial output (N. Voznesensky in **26.87**, pp. 12, 23 and 49); as its output rose 4.56 times to 1954 (index number in **26.69**) while total Soviet output rose 2.85 times, its share in 1954 was 10.6 to 11.4 per cent. The same procedure and sources yield for the Volga Zone a 2.8 to 3.0 per cent share in 1940, a 4.34-fold increase to 1954, and hence a 1954 share of 4.3 to 4.5 per cent. The Volga-inclusive "eastern zone" could thus be described as about one-third of output in 1954. The sources and methods for an index number 1954 to 1958, described below, were used to obtain an index number 1954 to 1955. At 112, this was exactly the same as the all-Union index, and the 1954 proportion of output in the eastern regions could thus be taken as that for 1955.

1958 gross industrial output in the eastern regions was derived from an index number for the area obtained as follows. Index numbers for 1954-1958 were taken from **26.70** for each eastern zone of the RSFSR and weighted by 1955 employment in industry, with similar index numbers and weights for the other eastern Union-Republics from **26.66, 67, 71, 72, 73** and **74**. The weighted increase for all the eastern regions was 46 per cent, compared with one of 50 per cent for the Soviet Union as a whole. Hence the 1958 share of gross industrial output in the eastern regions was computed as 26 per cent. This figure is roughly confirmed by Oznobin's statement (**26.7**, No. 7, 1959, p. 65) — apparently referring to 1958 — that the European part produced over 70 per cent of gross industrial output.

The industrial labour force in September of *1940*, *1955* and *1958* was obtained from **26.66, 67, 69, 71, 72** and **73** and calculated as a percentage of average monthly industrial employment for the Soviet Union (from **26.75**; no September counts were available therein).

Data on fixed assets in *1930* and *1955* (end-year) were taken from Table 6.

Capital and labour inputs in selected coal-fields (Text table on p. 19)

Output in 1955 was taken from **26.83** (pp. 38-39, 51); the breakdown between opencast and deep-mined coal was not separately available for Irkutsk, Kansk, and Minusinsk, all subordinate to Vostsibugol, whose percentage of opencast was applied to each. Investment and productivity data from I. Budnitsky (**26.85**, p. 80) citing statistics compiled by A. Probst.

Population, natural increase and immigration in the eastern regions of the Soviet Union (Table 3)

Data from the *1926 census* are cited by F. Lorimer in **36.5**; he quoted the numbers born outside the registration district given in the table, and gave immigration between 1894-1914 as 3.7 millions (including migrants who died in the eastern regions, but thereby excluding the few migrants of 1914-1926).

Data for gross intercensal increases between, and eastern-region population in, the *1939 and 1959 censuses* were taken from V. Davidovich (**26.48**, No. 5, 1959, pp. 8 and 10). The natural increase of the total population of the Soviet Union between 1926 and 1939 was 16.05 per cent and Lorimer (**36.5**, pp. 119 and 125) implies estimates of birth and death rates in the eastern regions in 1926 of approximately 54 and 35 per mille. Compared with rates for the European part of 43.5 and 23.5 per mille respectively, the natural rates of increase in both parts of the country would appear then to have been the same (around 20 per mille). The natural rate of growth of the main immigrant-receiving area (Siberia) was, however, 13 per cent above that of the European part in 1926 (**36.5**, pp. 81-82) and fertility subsequently declined faster in the west than in the east. The annual intercensal natural increment for the whole country (16.1 per cent over 13 years) was roughly half the rate of natural increase in 1926, and, as an approximate figure, a rate 25 per cent above the national rate was used for the eastern regions. Thus a 20 per cent increment of a 34,771,000 population in 1926 yields an excess of births over deaths of 4.2 millions, the other 6.5 millions resulting from migration. The actual increment during the 20 years 1939-1959 in the Soviet Union as a whole was 9.5 per cent, but in the eastern regions was roughly estimated at 20 per cent, to allow for a heavier death-rate in the (war-time occupied) west, and an approximately double birth-rate (see Table 2 and text p. 11). The natural increase in the eastern regions would, on this assumption, be of the order of 9.1 millions, leaving 7.2 millions as net immigration.

Data for net *war-time urban immigration* were based on statistics given by Voznesensky in **26.87**. On p. 109 he cited increases in worker and employee numbers between 1940 and 1943 in the eastern regions, which were applied to regional 1940 data from **26.69** as follows:

	1940	*Increase 1940-1943*	
	Thousands	*Percentage*	*Thousands*
Urals	2 413	36	869
West Siberia	1 559	23	359
Kazakhstan and Central Asia	2 087	7	146
Total	6 059	22	1 374

Before the war there were, with very small annual variations, 1.6 dependants per worker and employee (**26.79**, p. 342) but the proportion of women among workers and employees rose from 38 per cent in 1940 to 53 per cent in 1942 (**26.87**, p. 111), while the total of workers and employees dropped by 38 per cent between 1940 and 1943 (**26.87**, p. 109). Assuming the 1943 sex proportion to have been the same as in 1942, the ratio of men to women among workers and employees dropped from 1.6 to 0.9. If a similar proportionate change is applied to the dependency ratio, the number of dependants per worker and employee in 1943 would be 0.4. The drawing of adolescents and the aged into employment would have similarly tended to reduce the dependency ratio: between 1940 and 1942 the percentage of workers and employees aged less than 18 years rose from 6 to 15 (**26.87**, p. 113) and those aged over 50 rose from 9 to 12 (**26.87**, p. 113). As a rough order of magnitude, the 0.4 dependency ratio was applied to the worker and employee aggregate of 1,374,000, and thus yielded an overall increase of population dependent on hired employment in the eastern regions of some 2 million. The magnitude of this figure coincides with indicators of the change in urban population of the eastern regions. From January 1939 to January 1943 this rose by 4.7

million (**26.88**, p. 48). As during 1939-1959 all the natural increase of the population in the eastern regions was concentrated in the towns (**26.48**, p. 10), the 1½ per cent natural increase over these four years may be attributed to urban areas (natural increase in rural areas being offset by migration from village to town), i.e. 6 per cent of 45.5 millions—2.7 millions. This leaves an increase in urban population due to net immigration from the western regions of some 2 millions.

Regional location of industrial fixed assets, 1925 to 1958 (Table 6)

1925-1930 : **26.77**, pp. 72-75 (definition of coverage in **26.78**, p. 17); *1951-1956 :* **26.76**, p. 18; *1958 :* **26.75**, p. 134.

Assets in all cases were recorded undepreciated; those installed at the time of the 1 October 1925 inventory were valued at 1925 replacement cost and all others at original cost. 1925-1930 data are of fixed assets in large-scale industry only on 1 October 1925 and 1 January 1930, respectively. 1950-1957 data are of productive fixed assets in all state (and probably co-operative, other than collective-farm) industry on 1 January (but were published as of the end of each preceding year). The value of capital stock in industry in 1925 and in 1930 was 7,685 and 12,562 million roubles respectively (**26.77**, p. 72) and in 1932 was 22,586 million roubles, on the computation basis described below (**26.80**, p. XVI). The index numbers of industrial capital stock at the beginning of 1951 and 1956 were given as 610 and 846 (1933 = 100) respectively in **26.76** (p. 16) and in 1958 as 123 (1956 = 100) in **26.75** (p. 58). The series between 1925 and 1928 is specifically described as large-scale industry; that between 1933 and 1958 covered apparently all industry. An index splicing these two series was nevertheless constructed, although it would probably overstate the increment in all industry for the period 1925-1933.

N. Oznobin (**26.7**, No. 7, 1959, p. 65) states that about three-quarters of industrial assets are installed, and over 70 per cent of industrial production originates, in the European part. He presumably refers to 1958, but the changes (shown in Table 6) between 1956 and 1958 in the allocation by Union-Republics amount to a gain of 0.7 per cent by the Russian Federation at the expense of the rest, and it is improbable that this could have been accompanied by so large a relocation within the Russian Federation as would cause the eastern share to fall from 33 to around 25 per cent during those two years. Oznobin's context makes it clear that his geographical division between east and west is the same as in the table. He speaks, however, of " industrial fixed assets " whereas the statistical abstracts used for Table 6 speak of " industrial productive fixed assets ". If the difference is " non-productive " assets (e.g. works canteens, factory-owned housing or hospitals), a much higher ratio of social to productive capital is shown for industry in the European part. An alternative is that the definitions of industry are different, e.g. large-scale industry only is covered by Oznobin, whereas, as stated above, Table 6 apparently refers to all industry for 1951-1958.

Industrial output originating in the eastern regions of the Soviet Union, 1940 to 1965 Plan (Table 10)

The proportions of output originating in the eastern regions for *1940-1955* and for coal and cement in *1958* were taken from **26.69, 70, 75** and **76**. Other *1958 and 1965 Plan* were taken from the Plan Directives, **26.84** (coal, oil, electricity, pig iron, crude steel, rolled steel and sawn timber), **26.7**, No. 4, 1959, p. 36 (copper, aluminium, cement, industrial wood), **26.14**, No. 10, 1959, p. 1 (window-glass, soft roofing), **26.3**, 26 April 1959 (fabrics, knitwear, footwear) and **26.8**, No. 10, 1959 (fish). The 1940 and 1957 shares of oil output in the eastern regions was estimated at half the output of the Volga-Urals zone plus all that of " other regions " of the RSFSR and Central Asia and Kazakhstan given in **26.38**, No. 1, 1959, p. 68. 1957 output of industrial timber and sawnwood are from **26.75** and **26.70**. Alternative figures were given for pig iron (43 per cent) and rolled steel (48 per cent) in **26.7** (No. 7, 1959, p. 61) and for cement (41 per cent) in **26.14**, *loc. cit.* The timber-haulage share of Siberia and the Far East was given in **26.7** (No. 11, 1959, p. 52). Output of hosiery by region was taken from **26.70, 75** and **76** for 1940-1958, but the 1965 Plan for the eastern regions was published (**26.32**, No. 6, 1959, p. 7) only on a per capita basis. These targets were converted to total quantities on the assumption that the population of the eastern RSFSR was projected as 44 millions, and that of Kazakhstan and Central Asia as 25 millions; the 1965 Soviet target was taken from **26.32** (No. 1, 1959, p. 1).

Output of selected agricultural products by region, 1940 to 1965 Plan (Table 13)

Data were obtained from **26.75**. The 1965 targets, where not supplied directly by this source, were computed as follows. For grain and potatoes, the Ukrainian increase was applied also to Moldavia, the Ukrainian plans being cited in **26.50** (No. 2, 1959, pp. 29 and 31). The Ukrainian vegetable target was given in *ibid.* (p. 31), and the Kazakh grain and potato targets in **26.50**, No. 3, 1959, pp. 23-24. The Russian Federation meat and milk targets were distributed in equal proportions between east and west, because two zones in each were selected in the Directives (**26.84**) for special growth. The Russian Federation grain target could not, however, be distributed by east and west regions. The target for the Federation was cited (**26.50**, No. 4, 1959, p. 16) as 115-131 million tons. It appears that the minimum target should be used to compose the maximum target for the Soviet Union as a whole, since the other Union-Republican targets published amount to considerably more than the maximum Soviet goal if any figure but the minimum for the RSFSR is used.

Selling prices and transport charges for four materials from enterprises in the Moscow area (Table 15)

Zonal prices were taken from **26.82**, Vol. 1 (from the pages set out in column 1 below), *freight tariffs* from **26.81** (from the pages set out in column 2 below) and rail distances from the Moscow freight area to Minsk (803 km) and to Petrozavodsk (965 km) from **26.81**, pp. 317 and 319. The freight tariffs for the appropriate length of haul was for a 50-ton capacity wagon, and quantities of tiles, steel and radiators were converted to tons at the unit-weight ratios cited in **26.82**, *loc. cit.*, for each product. The *net sales proceeds* were obtained by deducting freight charges from the zonal price if marketed in Minsk or Petrozavodsk, and, if marketed in Moscow, by deducting the rebates, if any, on ex-works consignments (16 rbl/ton for cement, zero for ceramic tiles, 35 rbl/ton for construction steel, zero for radiators). The technical descriptions of the materials selected and the price zones (Moscow in all cases being zone I) were:

Description	*Page in :*		*Price zone of :*	
	Price list (1)	*Tariff schedule* (2)	*Minsk* (3)	*Petro-zavodsk* (4)
Tsement, bely portland, III sort . . .	44	124	I	III
Plitki keramicheskie, kobrovo-mozaichnie (prostoi nabor), I sort	77	126	I	II
Stalnye konstruktsii, rabochie ploshchadki legkogo tipa	507	102	I	II
Radiatory otoplenye, " M ", sredny glubinnoi 150 mm	713	102	I	III

Only commodities which were priced (or priceable) in tons, and which are produced in the *Moscow area* in substantial quantities, were selected (as shown in the statistical abstracts, **26.65** and **26.68**).

General non-zonal prices and local prices for selected commodities (Table 16)

The prices were taken from **26.82** (Vol. I for ‘general’ materials, Vol. II for ‘general’ equipment, and Vol. III for ‘local’ materials and equipment, on the pages listed below). The technical descriptions were as follows:

	‘General’ price on page	*‘Local’ price on pages*
Gvozdy s ploskoi golovkoi 0.7 × 7 mm and 1.0 × 15 mm.	I/385	III/401,473
Stal otsinkovannaya, tolshchina 0.51 mm., I sort . . .	I/252	III/400
Stal ugolovaya ravnobokaya martenovskaya, shirina polki 20-25 mm.	I/245	III/399
Avtotsisterna, emkost 4 120 1, “ ATs-4-150 ”	II/325	III/556

(ii) Sources for text

The following papers in Soviet periodicals were used in the preparation of the analysis of the Seven-year Plan in this SURVEY. The list does not include newspaper articles.

a. **General studies on the Plan.** — **26.7** No. 1, 1959, p. 16; No. 4, 1959, p. 11 and p. 24. **26.11** No. 12, 1958, p. 3. **26.38** No. 2, 1959, p. 41; No. 3, 1959, p. 41; No. 7, 1959, p. 22. **26.39** No. 4, 1959, p. 61. **26.57** No. 1, 1959, p. 3 and p. 35. **26.58** No. 1, 1959, p. 9. **26.60** No. 12, 1958, p. 19; No. 1, 1959, p. 10; No. 3, 1959, p. 3. **26.61** No. 18, 1958, p. 53; No. 17, 1959, p. 33. **26.62** No. 12, 1958, p. 64; No. 1, 1959, p. 19; No. 7, 1959, p. 3.

b. **National income, investment and finance.** — **26.7** No. 3, 1959, p. 3; No. 6, 1959, p. 11; No. 12, 1959, p. 16 and p. 20. **26.9** No. 12, 1958, p. 22; No. 2, 1959, p. 3; No. 3, 1959, p. 3; No. 5, 1959, p. 8. **26.38** No. 2, 1959, p. 18; No. 5, 1959, p. 3. **26.42** No. 2, 1959, p. 1; No. 5, 1959, p. 1. **26.43** No. 2, 1959, p. 3; No. 3, 1959, p. 3; No. 4, 1959, p. 3. **26.52** No. 5, 1959, p. 4. **26.62** No. 9, 1959, p. 22.

c. **Manpower.** — **26.15** No. 1, 1959, p. 9; No. 2, 1959, p. 21 and p. 36; No. 3, 1959, p. 3. **26.57** No. 1, 1959, p. 15.

d. **Fuel and power.** — **26.6** No. 4, 1958, p. 1; No. 4, 1959, p. 1. **26.7** No. 7, 1958, p. 20; No. 12, 1958, p. 28; No. 1, 1959, p. 42 and p. 55; No. 7, 1959, p. 34; No. 9, 1959, p. 3. **26.12** No. 5, 1959, p. 2. **26.19** No. 12, 1958, p. 1; No. 2, 1959, p. 1. **26.22** No. 12, 1959, p. 3. **26.28** No. 9, 1958, p. 1; No. 12, 1958, p. 1; No. 3, 1959, p. 1; No. 4, 1959, p. 1; No. 7, 1959, p. 1; No. 9, 1959, p. 1. **26.33** No. 8, 1958, p. 1; No. 1, 1959, p. 1. **26.36** No. 8, 1958, p. 5; No. 10, 1958, p. 1; No. 3, 1959, p. 1; No. 7, 1959, p. 5. **26.37** No. 10, 1959, p. 1. **26.38** No. 10, 1958, p. 58; No. 12, 1958, p. 71; No. 1, 1959, p. 67; No. 4, 1959, p. 35; No. 5, 1959, p. 59; No. 6, 1959, p. 36. **26.48** No. 4, 1959, p. 13. **26.53** No. 7, 1959, p. 1. **26.57** No. 1, 1959, p. 26.

e. **Metallurgy.** — **26.7** No. 12, 1958, p. 16; No. 2, 1959, p. 32; No. 3, 1959, p. 27. **26.21** No. 11, 1959, p. 3. **26.35** No. 1, 1959, p. 1. **26.44** No. 12, 1958, p. 1.

f. **Chemicals.** — **26.7** No. 2, 1959, p. 17. **26.10** No. 4, 1958, p. 1; No. 8, 1958, p. 1; No. 3, 1959, p. 1. **26.22** No. 1, 1959, p. 3; No. 6, 1959, p. 3. **26.61** No. 8, 1959, p. 24.

g. **Engineering.** — **26.7** No. 8, 1958, p. 23; No. 2, 1959, p. 44; No. 3, 1959, p. 42; No. 5, 1959, p. 39. **26.17** No. 1, 1959, p. 1. **26.20** No. 9, 1959, p. 1. **26.34** No. 2, 1959, p. 1. **26.37** No. 3, 1959, p. 1; No. 6, 1959, p. 1. **26.41** No. 12, 1958, p. 4.

h. **Building and building materials.** — **26.7** No. 6, 1959, p. 78. **26.11** No. 7, 1959, p. 1; No. 11, 1959, p. 4. **26.12** No. 1, 1959, p. 5; No. 12, 1959, p. 2. **26.13** No. 4, 1959, p. 1. **26.14** No. 12, 1958, p. 4 ; No. 2, 1959, p. 4 ; No. 3, 1959, p. 1 ; No. 7, 1959, p. 1 ; No. 9, 1959, p. 1. **26.25** No. 11, 1958, p. 1; No. 12, 1958, p. 1; No. 9, 1959, p. 1. **26.38** No. 1, 1959, p. 57. **26.51** No. 11, 1958, p. 4; No. 2, 1959, p. 4; No. 7, 1959, p. 1.

i. **Manufactured consumers’ goods.** — **26.18** No. 11, 1959, p. 1. **26.23** No. 1, 1959, p. 4; No. 3, 1959, p. 4; No. 7, 1959, p. 1. **26.24** No. 5, 1959, p. 48; No. 12, 1959, p. 1. **26.30** No. 1, 1959, p. 4. **26.32** No. 8, 1958, p. 1; No. 1, 1959, p. 1; No. 3, 1959, p. 4; No. 4, 1959, p. 4; No. 6, 1959, p. 5; No. 8, 1959, p. 7; No. 9, 1959, p. 4. **26.59** No. 1, 1959, p. 1; No. 2, 1959, p. 2.

j. **Food processing.** — **26.7** No. 11, 1958, p. 56; No. 3, 1959, p. 66. **26.8** No. 6, 1959, p. 3. **26.16** No. 2, 1959, p. 3. **26.27** No. 7, 1959, p. 1; No. 11, 1959, p. 2; No. 12, 1959, p. 1. **26.29** No. 6, 1959, p. 4. **26.31** No. 1, 1959, p. 1. **26.38** No. 1, 1959, p. 135.

k. **Agriculture.** — **26.7** No. 1, 1959, p. 28 and p. 90; No. 3, 1959, p. 53; No. 4, 1959, p. 41; No. 8, 1959, p. 35; No. 10, 1959, p. 26. **26.38** No. 5, 1959, p. 88; No. 6, 1959, p. 36; No. 12, 1959, p. 3. **26.50** No. 1, 1959, p. 11; No. 2, 1959, p. 11 and p. 25; No. 3, 1959, p. 19; No. 4, 1959, p. 10; No. 6, 1959, p. 10 and p. 31.

l. **Transport.** — **26.7** No. 1, 1959, p. 82; No. 10, 1959, p. 51. **26.32** No. 9, 1958, p. 5. **26.41** No. 1, 1959, p. 1; No. 3, 1959, p. 1. **26.46** No. 3, 1959, p. 1; No. 6, 1959, supplement. **26.47** No. 3, 1959, p. 1; No. 12, 1959, p. 3. **26.49** No. 12, 1958, p. 3; No. 2, 1959, p. 3; No. 3, 1959, p. 9; No. 4, 1959, p. 3. **26.55** No. 1, 1959, p. 2; No. 2, 1959, p. 2; No. 10, 1959, p. 4; No. 12, 1959, p. 5. **26.56** No. 1, 1959, p. 1; No. 9, 1959, p. 4. **26.61** No. 13, 1959, p. 55.

m. **Consumption services, trade and supply.** — **26.7** No. 11, 1958, p. 63; No. 2, 1959, p. 56 and p. 68; No. 5, 1959, p. 61 and p. 84. **26.15** No. 11, 1959, p. 57. **26.38** No. 4, 1959, p. 60; No. 11, 1959, p. 110. **26.45** No. 6, 1959, p. 1. **26.54** No. 1, 1959, p. 5; No. 3, 1959, p. 3. **26.60** No. 6, 1959, p. 3. **26.61** No. 7, 1959, p. 95. **26.63** No. 2, 1959, p. 1; No. 3, 1959, p. 1; No. 6, 1959, p. 1.

n. **Foreign trade.** — **26.7** No. 5, 1959, p. 3. **26.38** No. 2, 1959, p. 50.

o. **General problems of location.** — **26.7** No. 11, 1958, p. 45; No. 7, 1959, p. 59. **26.38** No. 10, 1958, p. 32; No. 1, 1959, p. 26 and p. 101; No. 4, 1959, p. 153; No. 10, 1959, p. 3; No. 12, 1959, p. 157. **26.61** No. 7, 1959, p. 61.

p. **Discussion of specific regions.** — **26.4** No. 12, 1958, p. 9; No. 1, 1959, p. 9. **26.5** No. 9, 1958, p. 142; No. 12, 1958, p. 3, p. 12, p. 28, p. 39, p. 61, p. 76 and p. 83; No. 6, 1959, p. 1. **26.6** No. 4, 1958, p. 4. **26.7** No. 11, 1958, p. 9 and p. 77; No. 12, 1958, p. 49, p. 59 and p. 67; No. 1, 1959, p. 65, p. 74, p. 79, p. 82, p. 83, p. 89 and p. 98; No. 2, 1959, p. 79 and p. 81; No. 3, 1959, p. 77 and p. 81; No. 4, 1959, p. 66; No. 5, 1959, p. 86; No. 6, 1959, p. 72; No. 7, 1959, p. 82 and p. 87; No. 8, 1959, p. 86; No. 9, 1959, p. 59; No. 10, 1959, p. 81 and p. 82; No. 12, 1959, p. 59 and p. 77. **26.12** No. 2, 1959, p. 11. **26.14** No. 10, 1958, p. 3; No. 10, 1959, p. 1. **26.21** No. 4, 1959, p. 3. **26.22** No. 7, 1959, p. 3; No. 12, 1959, p. 3. **26.26** No. 1, 1959, p. 2. **26.27** No. 7, 1959, p. 3. **26.32** No. 7, 1958, p. 4. **26.33** No. 1, 1959, p. 7; No. 3, 1959, p. 1; No. 4, 1959, p. 5. **26.35** No. 2, 1959, p. 1; No. 3, 1959, p. 1. **26.36** No. 12, 1958, p. 1. **26.38** No. 3, 1959, p. 71 and p. 151; No. 12, 1959, p. 33. **26.40** No. 6, 1959, pp. 2, 14 and 16. **26.43** No. 12, 1958, p. 10 and p. 25; No. 1, 1959, p. 29; No. 4, 1959, p. 29. **26.44** No. 9, 1958, p. 1; No. 8, 1959, p. 1. **26.48** No. 3, 1959, p. 12. **26.51** No. 6, 1959, p. 1; No. 8, 1959, p. 4. **26.61** No. 17, 1958, p. 44; No. 1, 1959, p. 30; No. 2, 1959, p. 59; No. 3, 1959, p. 24; No. 5, 1959, p. 13; No. 6, 1959, p. 68. **26.62** No. 2, 1959, p. 85.

q. **Product zoning.** — **26.7** No. 1, 1958, p. 24; No. 6, 1958, p. 89; No. 8, 1958, p. 40; No. 5, 1959, p. 48; No. 7, 1959, p. 34. **26.28** No. 9, 1959, p. 1. **26.32** No. 4, 1959, p. 4. **26.38** No. 4, 1959, p. 153. **26.53** No. 1, 1959, p. 1. See also R. Livshits, **26.86** Tables 74-78 and 81.

V and VI. THE ECONOMIC SIGNIFICANCE OF THE PUBLIC SECTOR

General Note on Sources and Methods

The data presented in Appendix Tables III-XVIII, and on which Tables 2-6, and Table 8 in Chapter V, Chart 1 in Chapter V, and Chart 1 in Chapter VI are based, conform to the OEEC standardized system of national accounts (**35.9**). Following recent adjustments, the concepts used by OEEC and the United Nations are now virtually identical (see **30.8**).

As indicated in the appendix tables, the main source used was **35.10**. OEEC data have been used because they provide a more detailed breakdown than United Nations data and give figures for central government as well as general government, wherever these are available.

Data for Austria, Finland and Spain were obtained from national sources or directly from national statistical offices, but those for Austria and Finland have been adjusted so as to be roughly comparable with the data for the other countries. Data for Spain, however, could not be fully adjusted, and investment is shown net instead of gross.

As indicated in footnote 1 to Chapter V, the government sector corresponds to the OEEC concept of general government (central and local government). Social security funds and operations are included in general government, and also in central government, wherever separate data are shown. Expenditure on defence, which is treated according to OEEC classifications as part of general-government consumption, is allocated to central government.

It should be noted that government income from property and entrepreneurship, as shown in the appendix tables, includes provision for depreciation of general-government capital (i.e. is given gross). This implies that general-government disposable income and saving are also gross, thus ensuring the validity of the identity : (gross) saving = (gross) capital formation ± savings surplus or deficiency.

V. THE PUBLIC SECTOR: ITS SIZE, STRUCTURE AND INSTITUTIONAL FRAMEWORK

Indicators of the size of the public sector and its components in 1957 (Table 1)

As explained in Chapter V, section 1, data for many countries shown in the table are based on sources of varying degrees of accuracy. The figures should therefore be taken as indicating orders of magnitude only; both inter-country comparisons and comparisons between the government sectors and the public-enterprise sector should be made with caution.

Except where otherwise indicated, all data were supplied by national statistical offices, and those for Sweden are from **23.A.** These data are believed to be fully, or almost fully, comprehensive.

For the other countries (i.e. except for Denmark, Finland, Norway, Sweden and the United Kingdom), the coverage of the data relating to public enterprises, and to the share of the public sector in factor income and in employment, is incomplete to an extent which cannot fully be ascertained; for additional details see the footnotes to Table 1, and section 4 of Chapter V.

Col. 1 : Share in gross national expenditure : data are taken from Table 2 for general government, and for public enterprises are identical with those used in Col. 4 (share in total gross fixed investment).

Col. 2 : Share in factor income : this comprises wages and salaries of general-government employees; imputed interest on buildings occupied by government and required for its civilian branches (GG); and income originating in public enterprises (PE). All of these are expressed as percentages of national income at factor cost. For the following countries income originating in the general-government sector is measured by wages and salaries paid out by general government:

Austria : **2.2**, pp. 6 and 12; includes contributions for pensions; *Belgium :* **3.1**, July-August 1959, pp. 5, 12-57; excluding the government's participation in the salaries of teachers in independent schools; *France :* **8.A**; *western Germany :* **10.1**, 1959, pp. 366, 487; *Netherlands*, **17.4**, 1958, pp. 61, 69.

Col. 3 : Share in active population : employment in the general-government sector and in the public enterprises as percentages of the total active population, except for western Germany, where the percentage is expressed in terms of the occupied labour force. The following sources were used:

Austria : **2.A**; *Belgium :* G. Ilegems and M. Defossez, "Les recettes et les dépenses publiques de la Belgique de 1912 à 1956", **3.5**, September 1958, pp. 35-37; **3.1**, July-August 1957, pp. 1395-1397; **3.3**, 1953, pp. 13, 15; *France :* **8.A**; *western Germany :* **10.A**; *Netherlands :* **17.5.**

Col. 4 : Share in total gross fixed investment : data are taken from the following sources which, except for Italy, also give the distribution between general government and public enterprises:

Austria : **2.B**; *Belgium :* **3.A** and **3.4**; *France :* **8.A**; *western Germany :* Appendix Table VII; *Italy :* **15.7**, 1957; *Netherlands :* **17.3**, 1960, p. 3.

The long-term development of the general-government sector, 1860-1957 (Chart 3)

As indicated in the notes to the chart, and as further explained below, all data refer to general government, except for tax receipts in Italy. With the exception of Norway, tax receipts exclude social security contributions.

United Kingdom : Net national income at factor cost and general-government consumption: *1870-1952 :* L. J. B. Jefferys and D. Walters, in **27.7**, *1952-1958 :* **27.2**, 1959.

Tax receipts : **27.1**. The figures relate to all central-government taxes *plus* local rates, which represent the greater part of local authorities' tax reecipts. Local rates were partly estimated for the period 1870/71 to 1892/93.

Sweden : Gross domestic product at market prices and general-government consumption: *1861-1951 :* **23.4**; *1952-1957 :* **23.5**. Tax receipts: *1946-1958 :* **23.1**, various years.

Norway : Gross national product at market prices, general-government consumption and tax receipts: **18.A.**

Netherlands : Net national product at market prices and general-government consumption and tax receipts: **17.5.**

Italy : Gross national product at market prices and government consumption: *1861-1956 :* **15.5** (Table 36, pp. 247, 248 and Table 42, pp. 260, 261); *1957 and 1958 :* **15.7**, 1958, p. 48. Central-government receipts: **15.4**, p. 206. Government receipts relate to the central government only and have a wider coverage than tax receipts; the series relates to total revenue of the "parte effettive", which includes both ordinary and extraordinary receipts but excludes "movimento di capitali". As from 1885, government revenue relates to financial years ending on 30 June of the following calendar year.

Shares of public-enterprise in gross national product (Chart 4)

Belgium : **3.A** and **3.4**; *France :* **8.A**; *Netherlands :* **17.3**, 1960, p. 3; *Sweden :* **23.5**, 1959, pp. 18-21; *United Kingdom :* **27.2**, 1959, p. 29; United Kingdom data refer to public corporations only.

VI. THE PUBLIC SECTOR AS A TOOL FOR SHORT-TERM ECONOMIC POLICY

Shares of central-government receipts and expenditure in gross national product (Chart 1)

Except for western Germany, the data relate to central government only. With the following exceptions, the figures are taken from the appendix tables:

Belgium : **3.6**, No. 5, November 1959, except for gross investment, which has been derived from **3.A** and **3.4**; *France :* **8.A.**

VII. CAPITAL FORMATION AND ECONOMIC GROWTH

Selected economic indicators and structural characteristics of the economies of southern Europe and Ireland (Tables 1 and 2 and Appendix Table XXIII)

Population and Labour Force

In general, data have been taken from the official reports on population censuses for years 1928-1936 and 1951. The figures for 1957-1958 have been taken from official estimates or have been estimated by the secretariat.

Greece : 1928: **11.5** and 1951: **11.2.** Pre-war figures have been adjusted to take account of the incorporation of the Dodecanese in 1947 and for the rather broad concept of "family helpers". Figures for 1957 have been estimated.

Ireland : Results of 1936 and 1951 Censuses. 1957 figures were derived from **14.4** (1958) and **14.5.**

Southern Italy : Labour force: 1936 and 1951 Censuses as reported in **15.8** (Nos. 44-45, 1958). As the sample surveys made by the Central Statistical Office since 1952 are not comparable with the results of the population census, active population by sector in 1957 was estimated as follows: the increase in total active population, and in the various sectors, between 1950 and 1957 for the whole of Italy (**15.13**), was applied to the 1951 census figures. The percentage of southern Italy to the whole of Italy in 1952 and 1957 (**15.15**) was used as a guide to estimate changes from 1951 to 1957 for southern Italy.

Population: For 1957, *total* population refers to the "resident" or de jure concept, while labour force refers to the "present" or de facto concept. The discrepancy between resident and present population has probably been growing in recent years due to the increasing (and partly unrecorded) flow of emigration and, more especially, migration to other parts of the country.

Portugal : 1930 data from **20.3** (1939); 1950 data from **32.1**; 1957 figures estimated on the basis of population of working age, and available data on employment. Pre-war figures have been adjusted to the post-war concept of "family helpers".

Spain : All data, except that for women employed in agriculture, are from **22.12.** The number of women in agriculture has been estimated on the basis of the figures given in the 1940 census.

Turkey : All data for 1935, 1950 and 1955 have been derived from the percentages given in **32.2** (October 1959) and from the figures of population of working age shown in **25.1.** The inclusion of Matay in 1939 has been taken into account.

Yugoslavia : Percentage distribution by economic branches was taken from **28.7** and applied to the total active population in 1931 (augmented by 4 per cent to take account of the inclusion of Venezia Giulia) and to the total active population in 1953 (including pensioners, etc. as in 1931). Figures for 1957 have been derived from data in the same source and adjusted for changes in the concept of 'active population'.

Total OEEC : **35.1** and **35.18.**

Employment, Output and Production per Man

Distribution of employment by economic sector was derived from the data on active population. (See above.)

Distribution of output by economic sector refers to gross domestic product at factor cost (see notes on national accounts below).

Production per man has been calculated by dividing gross domestic product by active population, both for the total and for the different sectors.

National Accounts Aggregates and Their Composition

Greece, Ireland, Portugal and Turkey : Pre-war data were generally taken from **35.16** and post-war from **35.1** (January 1960).

Southern Italy : Data on gross national product and investment from **15.12** have been roughly deflated by using the deflators in national accounts for Italy as a whole taken from **35.1.**

The breakdown of gross national product by economic sector in 1957 was obtained from **36.9.**

Spain : National income from **30.9**; capital formation from **22.C**; and distribution of expenditure on gross national product in 1956 from **22.7.**

Yugoslavia : The various items of expenditure on gross national product at 1956 prices from **28.A.** The distribution of expenditure in 1957 was calculated on the basis of data from **28.1** (1959). The breakdown of private consumption in 1957 was based on the percentage distribution of private consumption in 1956.

" Public investment " normally refers to general-government investment, in accordance with the OEEC definition of national accounts. All other investment is included under the heading of " private investment ", except for southern Italy, where public investment includes investment of public enterprises

Sources :

Greece, Ireland and *Portugal :* **35.10**; *Spain :* **22.7**; *Southern Italy :* **15.12.**

" Import surplus " refers to the balance of goods and services, and was derived from national accounts.

" Gross domestic saving " has been derived as the difference between " gross domestic capital formation " and " import surplus ".

Commodity Output and Trade

The indices of output of agriculture (except for southern Italy) and industry have been derived from: **33.1, 35.4, 35.15** and, for *Spain :* **22.11** (1958) and **22.4** ; and for *Yugoslavia*: **28.2** (December 1959).

The index of total commodity output has been derived as a weighted average of the industrial and agricultural output indices. The weights have been taken from national accounts (proportion of agriculture and industry in gross domestic product at factor cost).

For *southern Italy*, an index of agricultural output is not available. The rate of growth of agricultural output has been calculated on the basis of a volume index estimated as follows:

Gross agricultural income at current prices from **15.6** has been deflated with a price index constructed on the basis of the figures contained in *ibid.* 1954. This gives (*a*) separate data on the weights of the major classes of products for southern Italy, and (*b*) price indices for the major classes of agricultural products for Italy as a whole (*ibid.* 1958, Appendix 2). Since the two series are not entirely homogeneous, the data on gross agricultural income at constant prices for southern Italy should be considered as only broadly indicative. The resulting index of gross agricultural income at constant prices has been used as an index of agricultural output, since similar published indices for Italy as a whole move the same way.

Data on commodity trade were obtained from the following sources: **30.4, 35.2** and national statistics.

Selected indicators of agricultural development in southern Europe and Ireland (Table 4)

Except for southern Italy, data were taken mainly from **35.1, 35.4** and **33.1.** In addition, **22.9** and **22.10** (No. 107, 1959) were used for Spain; and **28.5** (No. 52, 1959), **28.6** and **28.A** for Yugoslavia.

For southern Italy, see sources and methods for Tables 1 and 2.

Changes in total output of agriculture and livestock products (Table 5)

With the following exceptions, data were obtained from **35.5** (p. 12), and **35.4** (p. 21):

Southern Italy : **15.9**

Spain : **33.1**

Yugoslavia : **28.5** (No. 52, 1959); **28.A** and national statistics.

Distribution of gross fixed investment in agriculture and forestry in southern Europe and Ireland (Table 6)

The *breakdown* of agricultural investment has been obtained from sources other than those used for *total* investment (top row of the table and first two rows in lower half of table), which are from national accounts. So far as possible, the sum of agricultural investment by sectors was reconciled with the totals from national accounts by excluding certain items from the former which were known, or presumed, not to be included in the latter. Differences between national accounts totals and the sum of the constituent items shown in the table were not normally greater than about 5 per cent. Examples of such data that were excluded are certain types of investment related to agriculture but normally classified under other heads, such as rural dwellings or roads and rural electricity and water supply, and it is believed that in the most important cases the original data were sufficiently detailed to allow their deletion. In such instances the figures have been shown separately in the table as " other investment, not included above ", but in other cases a certain amount of such expenditure is probably included in construction work and miscellaneous.

Also included under miscellaneous are such items as the planting of fruit trees, investment in pedigree livestock, expenditure on research, and investment in silage, storage facilities etc. Here, too, complete uniformity of practice does not prevail and it is possible, for example, that in some cases investment in fields ancillary to agriculture proper, such as agricultural industry or marketing, is included without this being explicitly specified.

The following sources were used for the distribution of agricultural investment:

Greece : **35.14**

Ireland : **14.A**

Southern Italy : Investment in agriculture : data for *1950* from **15.6** (1950, p. 319); data for *1951*, partially estimated; data for *1952-1954*, from **15.10**; and data for *1955-1957* from **15.6** (1955, 1956 and 1957).

Structure of agricultural investment : investment in *agricultural machinery*, from the sources indicated above; the breakdown of *other investment* by main branches for the period 1950-1957 is not available in official sources, but an approximate indication for the three major classes of investment in southern Italy has been obtained as follows:

(*a*) Investment carried out by the agrarian reform agencies as at 31 December 1957 from **15.6** (1957, p. 406);

(*b*) investment in reclamation works in the south (situation as at 30 June 1958); projects approved by the Cassa per il Mezzogiorno, from **15.11** (p. 21);

(*c*) land improvement investment in southern Italy approved for subsidy by the Cassa per il Mezzogiorno as at 31 December 1957 from **15.6** (1957, pp. 443-444). Part of this investment will not yet have been implemented.

These three sectors account for about 90 per cent of total agricultural investment other than in agricultural machinery.

Portugal : **20.A**

Spain : **22.A**

Turkey : **25.3** and **31.3** (pp. 60-62)

Yugoslavia : **28.A** and national statistics.

Yugoslavia: Increases in yields of wheat and maize, 1955 to 1959; indicators of agricultural development; and areas and yields of farms applying the new agricultural technique (Tables 10, 24 and 25 and text table on p. 17)

Data were taken from national statistical bulletins and yearbooks and from **28.A.** In addition, the following sources were used: for *Table 10* : **28.11** (29 and 30 November 1959); for *Table 24* : **28.5** (No. 52, 1959) and **28.12** (Nos. 404-405).

In *Table 25* : 1959 yields for state and co-operative farms were calculated on the basis of a press statement that in 1959 the social sector accounted for 20 per cent of the output of wheat and 14 per cent of maize.

Some per capita comparisons between the agricultural sector in southern Europe and Ireland and in industrial western Europe (Table 11)

Indices of total agricultural output and of output of livestock products are derived from data published in **35.5** (pp. 11 and 12); and from **15.8** (Nos. 9-10, 1958) for southern Italy.

With the following exceptions, all other indices are derived from data published in **35.4**:

Southern Italy : **15.1**

Spain : **22.9** for data on agricultural area.

Structure and growth of industrial output by sectors in southern Europe and Ireland; industrial output by type of product in Greece, Ireland and Yugoslavia (Tables 12 and 13)

Sources : The general sources used were **35.15**; for Spain, **22.11** (1958) and for Yugoslavia, **28.2** (December 1959). These were supplemented by **35.1** (November 1959), **11.3** (for Greece) and **14.3** (for Ireland).

Methods : Percentage shares in total output are derived from the percentage distribution in 1953, as published by the OEEC in **35.19.** Where original national weights do not relate to value added in 1953, the distribution in 1953 is itself a function of the original weight and indices of output between that year and 1953 (see *ibid.*). For Yugoslavia, weights relating to value added in 1953 are extracted from **28.13.**

For *Greece*, a new official index, commencing 1959, is now published; the index for total industrial production is 106 (1957 = 100) for January-October 1959, compared with the figure of 113 given by the index of the Federation of Greek Industry.

For *Portugal*, an unofficial index of industrial production based on 1953 is published by the Associação Industrial Portuguesa for the years 1956 to 1958 in **20.5**, and recent monthly data are available in **20.6.** The following results are based on this index:

Percentages

Sectors	Share of total output		Increase in volume	Annual rate of growth of output
	1953	1958	1953-1958	1953-1958
Total	*100*	*100*	*42*	*7.3*
of which:				
Mining	3	2	−26	−5.8
Metal-using and metal-making	16	19	72	11.5
Chemicals	18	18	43	7.4
Textiles and clothing	18	15	15	2.9
Food, beverages and tobacco	16	14	24	4.4
Electricity	5	7	97	14.5

For *Spain*, a new index based on 1953-1954 = 100 (and which includes petroleum and makes allowance for the reduced weighting appropriate to mining and electricity) is published in **22.8** and gives the following results:

Percentages

Sectors	Share of total output[a]			Increase in volume		Annual rate of growth of output	
	1950	1957		1950-1957		1950-1957	
	New index	New index	Old index	New index	Old index	New index	Old index
Total	*100*	*100*	*100*	*74*	*84*	*8.3*	*9.1*
of which:							
Mining	7	6	20	51	50	6.1	6.0
Metal-making	22	21	3	65	68	7.4	7.7
Chemicals	8	14	12	196	106	16.8	10.9
Textiles	18	13	6	28	35	3.5	4.3
Food, beverages and tobacco	14	11	..	40	..	4.9	..
Energy	4	5	56	105	104	10.8	10.7

[a] The shares in total output in 1950 and 1957 are derived by applying indices of output to the percentage distribution in 1953-1954 (**22.D**).

Mining production in southern European countries (Table 15)

The series for coal mining cover hard coal and lignite (including brown coal in Yugoslavia).

The series for " other mining " cover the following:

Greece : manganese ore, iron ore and pyrites, lead ore, zinc ore, bauxite, chrome ore, magnesite.

Southern Italy : lead ore, zinc ore, bauxite, sulphur.

Portugal : manganese, iron ore, lead ore, tin ore, tungsten ore, copper pyrites.

Spain : manganese ore, iron ore and pyrites, copper ore, lead ore, zinc ore, tin ore, tungsten ore, antimony ore, mercury ore, magnesite, sulphur.

Turkey : manganese ore, iron ore, copper ore, lead ore, zinc ore, chrome ore, antimony ore, sulphur.

Yugoslavia : manganese ore, iron ore and pyrites, copper ore, lead ore, zinc ore, bauxite, chrome ore, molybdenum ore, antimony ore, mercury ore, magnesite.

Weights used : For the period *1901-1945* : percentage share of the total value of output in 1928-1934 at 1928-1930 prices; for the period *1946-1957* : percentage share of the total value of output in 1953 at 1953 prices.

The prices used were basically the same for any one mineral regardless of country. They are averages of quotations of metal prices in, or unit values of mineral imports into, the United Kingdom. Adjustments were made for the various metallic contents of the ores.

Sources : **30.1** and **31.1** (1953), except for southern Italy (**15.14**). Prices and unit values are from **27.4, 27.6, 10.3** and **10.5.**

Apparent consumption of primary energy in southern Europe and Ireland (Table 16)

Apparent consumption : figures are mainly based on the replies of governments to questionnaires of the secretariat, original data being converted into tons of hard-coal equivalent (7,000 Mcal) on the basis of the following rates of conversion (per ton): brown coal and lignite: 0.5; crude petroleum: 1.3; petroleum products: 1.5; natural gas (per 1,000 cubic metres): 1.3; and hydro-electricity (per 1,000 kWh): 0.4.

Net imports in coal equivalent have been taken from **35.15** for Greece, Ireland, Portugal and Turkey. For Spain and Yugoslavia original data, from **22.B** and **28.3** respectively, have been converted into hard-coal equivalent by using conversion factors taken from **35.15.**

Output, trade and consumption of steel, cement and fertilizers in southern Europe and Ireland (Table 17)

Sources :

Steel: **30.1** and **31.5.**

Fertilizers: **33.1** and **35.15.**

Cement: **36.8.**

For steel, trade data relating to steel products have been converted into crude-steel equivalent on the basis of appropriate conversion coefficients.

Distribution of gross fixed investment in industry; and gross fixed capital formation by sectors in southern Europe and Ireland (Tables 19 and 23)

In general, data on total gross fixed investment, total gross domestic and gross national product have been taken from **35.1** (January 1960). In addition, the following sources were used:

Southern Italy : **15.12.**

Spain : **22.7.**

Yugoslavia : **28.1**; the figures have been adjusted to conform to the OEEC definition of gross national product by adding the (estimated) product of the service sectors.

Data on investment in industry, the breakdown of gross fixed investment by sector and the percentage of gross fixed investment in manufacturing were obtained from the following sources:

Greece : **35.1** (March 1959) and **11.4** (1953-1955 and 1957).

Ireland : **14.A.**

Southern Italy : agriculture : see sources and methods to Table 6; *industry :* **15.8** (Nos. 22 and 23, 1957) and **15.A**; *dwellings :* estimated by applying to the total of investment in dwellings in Italy the proportion represented by the number of rooms completed in the south (**15.7**, 1957).

Portugal : **35.1** (March 1959).

Spain : **22.7** for the years 1954-1956; **30.9** and **22.C**, for the year 1957.

Turkey : **25.1** (No. 55, September 1958) and **25.3.**

Yugoslavia : **28.1** and **28.9.**

Industrial output, labour force and productivity; and gross fixed investment per additional worker in southern Europe and Ireland (Table 20)

Data on active population are the same as those used for Table 1 and Appendix Table XXIII.

For the increase in industrial output, indices of industrial production have been used (see sources for Table 12). The percentage increase in output per person employed was calculated by dividing the index of industrial output by the index of the industrial labour force.

Selected data on industrial output, gross fixed capital formation, employment and productivity in Yugoslavia by major sectors, 1952 to 1958 (Table 21)

Sources : Gross fixed capital formation: **28.9**; Employment: **28.10**; Output: **28.A.**

It is believed that the coverage of the three series is broadly comparable. However, the apparent decline in output per person employed in the *food industries* and the absence of increase in *textiles* is due to the difference in statistical coverage in 1952 compared with the later years. In 1952 the total output in these industries was recorded, but the coverage of the number of workers employed was incomplete. In subsequent years, the scope of the employment series for these industries was broadened. Consequently, the increase in the numbers employed between 1952 and 1958 is exaggerated.

Pattern of industrial growth (footnote 73)

Sources : W. G. Hoffmann (**27.8** and **36.6**); R. Wagenführ (**36.7**); A. Gerschenkron (**29.3**); **26.74** and **26.84.**

Methods : The rates of growth in France and the United States were derived by applying the proportions for each of the sectors given in the statistical appendix to **36.6** to the movement of the index of manufacturing production for the periods concerned.

Changes in the structure of production 1950 to 1958 (footnote 75)

Sources :

Greece, Ireland and *Yugoslavia :* as for Table 12.

Turkey : in the absence of indices of industrial output having a satisfactory coverage of manufacturing, the shares of the different sectors in total value added have been utilized. The data on value added have been taken from the 1950 Industrial Census and from the Annual Survey of Industry, published in **25.1** (No. 55, September 1958).

OEEC : **35.1.**

Marginal capital/output ratios (Text tables on pages 34 and 45 and footnote 18)

Marginal capital/output ratios have been calculated as follows:

The volume of total gross fixed capital formation for the economy as a whole and for the sectors, at constant prices, for the period shown *(less the latest year)* has been divided by the increase in total gross national product, and gross domestic product (at factor cost) for the sectors, at constant prices, for the *whole* period shown, e.g. for Portugal:

$$\frac{\text{Gross capital formation during 1950-1957}}{\text{Increase in gross product, 1950 to 1958.}}$$

The sources used for investment and output have been taken from national accounts, as indicated for Tables 1 and 2.

Per capita gross national product 1938, 1950, and 1955 to 1958 (Chart 2)

Per capita gross national product in 1955 for eight countries was taken from **35.8** and for other countries, with the following exceptions, from **35.1**; data in national currencies being converted into United States dollars at 1955 official exchange rates (for *Turkey* the exchange rate used was £T.4.90 per US dollar).

Spain : **22.8.** Exchange rate used: 42 pesetas per US dollar.

Yugoslavia : **28.A.**

Data for 1938, 1950, 1956, 1957 and 1958 were derived by applying to the 1955 figures volume indices of per capita gross national product, given in **35.1**, except for Spain (**22.8**) and Yugoslavia (**28.A**).

Average gross national product for the countries shown was derived by weighting with 1955 population.

Distribution of gross national product in Italy between south and north was based on data from **15.10** for 1938, and from **15.12** for other years.

VIII. PROBLEMS OF EXTERNAL AND INTERNAL BALANCE

Exports and imports of southern Europe and Ireland, 1913 to 1957-1958 (Tables 1 and 5)

Sources:

(a) *Current values:* 1913: **31.4** and **36.2**; 1928: **36.4**; 1937-1958: **30.7**, **30.2** and **30.4**.

(b) *Index numbers of volume, unit values and terms of trade:* World: **30.1**; western Europe: **30.2**; Greece: national statistics and **35.3**; Ireland: **14.3**; Portugal: national statistics and **30.4**; Spain: **22.5** and **22.4**; Turkey: **25.1**; and Yugoslavia: **28.1**.

Commodity imports and exports as a percentage of gross national product in southern Europe and Ireland (Text tables on pages 3 and 4)

Imports and exports: **30.7**.

Gross national product:

Greece, Ireland, Portugal and Turkey: **35.1** (January 1960).

Spain: **30.9**, 1957 and 1958 (national income).

Yugoslavia: **28.1**, 1958 and 1959 (gross material product adjusted for services).

Annual percentage rates of growth of world industrial production and exports of manufactured goods and raw materials since 1878 (footnote 22)

Sources:

For 1876-1938: **36.3** and **31.4**; for 1948-1958: **30.1** and **30.2**.

Owing to a number of qualifications concerning the coverage of the data and the fact that the data are based upon the combination of a variety of series, rates of growth of foreign trade and manufacturing output covering such a long historical period should not be regarded as representing more than orders of magnitude.

Saving and investment in southern Europe and Ireland (Table 9)

Gross Domestic Capital Formation

Greece, Ireland, Portugal and Turkey: **35.1** (January 1960).

Spain: **22.C**; the figures shown in Table 9 are slightly different from those shown in some tables of Chapter VII, which were based on official figures available only for the period 1954-1956.

Yugoslavia: **28.1** (1958 and 1959).

Import Surplus

See sources for gross domestic capital formation (above), except for *Spain:* **22.7** and rough extrapolation for 1957.

Public Saving

Sources:

35.10, except where indicated below.

Methods:

Public saving represents (*a*) the surplus (negative public saving if there is a deficit) on current account of the government sector (including local authorities); (*b*) the net surplus or deficit on current account of public enterprises; and (*c*) the losses resulting from the operation of the multiple exchange rate system — e.g., the deficit of the Fondo de Retorno in Spain, and of the relevant accounts of the Central Bank and of the Agricultural Bank in Turkey.

Ireland: national accounts data from 1953 onwards have been completely revised and, with the exception of public saving, the data shown for earlier years are based on a linking of the former series to the revised one. Such linking was not considered advisable in the case of public saving, however, because the new series gives a positive result and the old a negative one, as follows:

Public saving as percentage of gross national product

	1954	*1955*	*1956*	*1957*
Old series	−0.8	−0.5	−0.2	−0.6
Revised series . .	1.1	1.1	1.3	1.9

The percentages shown for public saving prior to 1954 are based on the old (unrevised) series and are therefore not comparable with those for subsequent years.

Spain and Turkey: the figures for public saving are secretariat estimates based on budgetary data, various data on public enterprises (**22.13** and **35.17**, 1958) and estimates of the deficits of multiple exchange rate accounts derived from an analysis of trade in relation to the use of effective exchange rates.

Yugoslavia: because of the difficulty of segregating public from private saving, no breakdown of domestic saving between public and private has been given.

Private Saving

Difference between total domestic saving and public saving.

Gross National Product

Greece, Ireland, Portugal and Turkey: **35.1** (January 1960).

Spain: **22.7** for 1954 to 1956. For other years the series has been derived by applying to the figures available the index of national income from **30.9** (1957 and 1958).

Yugoslavia: Gross national product has been calculated by adding to the gross material product (from **28.1**) the estimated product of the service sectors.

Money supply in southern Europe and Ireland (Table 10)

For *Yugoslavia*, the banks hold a number of different kinds of deposits, classified by purpose. Payments into and out of each account may be made only in accordance with the purpose of the account. Currency, plus the giro accounts of enterprises, which may be drawn upon for all operating purposes, the deposits of semi-public and similar institutions, which may be drawn upon for their current expenditures, and a few miscellaneous accounts are here classified as money. Consequently, the data used in this table correspond to the concept of " money supply " used in **34.2**.

Government revenue and expenditure (Table 11)

Sources:

Greece, Ireland and Portugal: **35.10**;
Spain: **30.1**;
Turkey: **30.1** and **25.5**;
Yugoslavia: **28.1** and **28.8**.

Methods:

For *Greece*, *Ireland*, *Portugal*, *Spain* and *Yugoslavia* budgetary figures refer to calendar years or averages of calendar years. For *Turkey*, receipts relate to calendar years for 1950-1951 and to fiscal years starting on 1 March for 1957-1958; for 1957-1958 they refer to budget estimates. In order to have comparability with 1950-1951, the classification of receipts given in **30.1** was slightly changed.

Gross national and agricultural product, cost of living and balance of payments (Chart 1)

Sources :

Changes in the volume of gross national product and agricultural product :

Greece, Ireland, Portugal and Turkey : **35.1** (January 1960);

Yugoslavia : **28.A**;

Spain : Change in national income from **30.9** (1957 and 1958).

Change in the cost of living : Table 8.

Value of imports and deficit on goods and services : **34.1.** For *Portugal,* data relate to metropolitan area only.

Growth of gross fixed capital formation and its relation to gross national product (Chart 2)

Gross fixed investment and gross national product at current prices : See sources and methods for Table 9 and, for *southern Italy,* **15.12.**

Gross fixed investment at constant prices :

Greece, Ireland and Portugal : **35.1** (January 1960).

Southern Italy : Data in current prices from **15.12** have been roughly deflated with the implied price index for investment for Italy as a whole contained in the national accounts.

Spain : **22.C**, in which data in current prices were converted into constant prices by utilizing the wholesale price index.

Turkey : 1948-1955: **25.3**; 1956 and 1957: estimated by roughly deflating data in current prices from **35.1** with the deflator for gross national product.

Yugoslavia : **28.A.**

Monetary expansion and indices of liquidity (Chart 3)

Money supply : **34.2.**

Gross national product :

Greece, Ireland, Portugal and Turkey : **35.1** (January 1960).

Spain : National income: **30.9** (1957 and 1958).

Yugoslavia : Gross material product: **28.1** (1958 and 1959).

Index of prices (implied in national accounts) : See sources for gross national product (above), except for *Yugoslavia,* for which figures at constant prices were obtained from **28.A.**

LIST OF SOURCES QUOTED IN APPENDIX B

ALBANIA

1.1 *Zeri i popullit.* Daily.
1.2 *Bashkimi.* Daily.
1.3 Komision të planit të shtetit : *Ekonomia popullore.* Every two months.
1.4 Drejtoria e statistikës : *Anuari statistikor i R.P. Sh.* Annual.

AUSTRIA

2.1 Österreichisches Statistisches Zentralamt: *Statistik des Aussenhandels Österreichs.* Quarterly.
2.2 Österreichisches Statistisches Zentralamt: *Österreichs Volkseinkommen im Jahre 1958.* 1959.
2.A Information supplied by the Bundesfinanzministerium, Bundesministerium für Verkehr and Elektrizitätswirtschaft, Bundeskanzleramt.
2.B Information supplied by the Österreichisches Institut für Wirtschaftsforschung.

BELGIUM

3.1 Institut national de statistique: *Bulletin de statistique.* Monthly.
3.2 Institut national de statistique: *Bulletin mensuel du commerce extérieur de l'Union économique belgo-luxembourgeoise.*
3.3 Ministère des affaires économiques: *L'économie belge.* Annual.
3.4 Ministère des affaires économiques: *Treizième rapport relatif au problème des investissements. Année 1957.* 1958.
3.5 Ministère des finances: *Bulletin de documentation.* Monthly.
3.6 Institut de sociologie Solvay: *Cahiers économiques de Bruxelles.* Four times a year.
3.A Information supplied by the Ministry of Economic Affairs.

BULGARIA

4.1 *Rabotnichesko delo.* Daily.
4.2 Tsentralno statistichesko upravlenie pri Ministerskiya savet : *Statistichesky godishnik na Narodna Republika Bulgaria.* Annual.
4.3 Tsentralno statistichesko upravlenie pri Ministerskiya savet: *Statistichesky izvestiia.* Quarterly.
4.4 Prezidiuma na narodnot subranie: *Izvestiia.* Irregular.
4.5 Tsentralno statistichesko upravlenie pri Ministerskiya savet: *Vneshna trgoviya na narodna Republika Bulgariya.* Statisticheski sbornik. Annual.

CZECHOSLOVAKIA

5.1 *Rudé Právo.* Daily.
5.2 *Mladá Fronta.* Daily
5.3 *Pravda.* Bratislava. Daily.
5.4 Státní úřad statistický: *Statistická ročenka Republiky Československé.* Annual.
5.5 Státní úřad statistický: *Statistické zprávy.* Monthly.
5.6 Státní úřad statistický: *Statistický obzor.* Monthly.
5.7 Státní úřad statistický: *Demografická příručka 1959.* 1959.
5.8 Státní úřad plánovací: *Planované hospodářství.* Monthly.
5.9 Ministerstvo zahraničního obchodu: *Zahraniční obchod.* Monthly.
5.10 *Hospodářské noviny.* Orbis. Weekly.
5.11 Československá akademie zemědělských věd v Praze: *Za socialistické zemědělství.* Monthly.
5.12 "Směrnice ústředního výboru KSČ a vlády ČSR pro vypracování třetiho pětiletého plánu rozvoje národního hospodářství ČSR v létech 1961-1965." *Rudé Právo*, 17 October 1959.
5.13 Chamber of Commerce of Czechoslovakia: *Economic News Service.* Monthly.

DENMARK

6.1 Statistisk departement: *Vareomsaetningen med udlandet.* Monthly.
6.2 Statistisk departement: *Danmarks vareindførsel og -udførsel.* Annual.
6.A Information supplied by the Statistisk departement.

FINLAND

7.1 Tullihallitus — Tullstyrelsen: *Ulkomaankauppa, kuukausijulkaisu — Utrikeshandel, månadspublikation.* Monthly.
7.2 Tullihallitus — Tullstyrelsen: *Ulkomaankauppa, vuosijulkaisu — Utrikeshandel, årspublikation.* Annual.
7.A Information supplied by the Statistiska centralbyrån.

FRANCE

8.1 Direction générale des douanes et droits indirects: *Statistique mensuelle du commerce extérieur de la France.*
8.2 Direction générale des douanes et droits indirects: *Tableau général du commerce extérieur. Commerce de la France avec la zone franc et les pays étrangers.* Annual.
8.A Information supplied by the French Government.

EASTERN GERMANY

9.1 *Neues Deutschland.* Daily.
9.2 Staatliche Zentralverwaltung für Statistik: *Statistisches Jahrbuch der Deutschen Demokratischen Republik.*
9.3 Staatliche Zentralverwaltung für Statistik: *Statistische Praxis.* Monthly.
9.4 Staatliche Zentralverwaltung für Statistik: *Vierteljahreshefte zur Statistik der Deutschen Demokratischen Republik.*
9.5 *Der Siebenjahrplan der Deutschen Demokratischen Republik — das Programm für den Sieg des Sozialismus :* Gesetz über den Siebenjahrplan zur Entwicklung der Volkswirtschaft der Deutschen Demokratischen Republik in den Jahren 1959 bis 1965 (Beschlossen von der Volkskammer der Deutschen Demokratischen Republik am 1. Oktober 1959) — Der Siebenjahrplan des Friedens, des Wohlstandes und des Glücks des Volkes (Rede des Ersten Stellvertreters des Vorsitzenden des Ministerrats der DDR, Walter Ulbricht, vor der Volkskammer der DDR). 1959.
9.6 *Die Material-Wirtschaft.* Die Wirtschaft. Twice a month.
9.7 *Einheit.* Dietz Verlag. Monthly.
9.8 *Der Aussenhandel und der innerdeutsche Handel.* Die Wirtschaft. Twice a month.
9.9 *Die Wirtschaft.* Die Wirtschaft. Weekly.

WESTERN GERMANY

10.1 Statistisches Bundesamt, Wiesbaden: *Statistisches Jahrbuch für die Bundesrepublik Deutschland.*
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